Presentations

Thursday, May 31, 2018

Thursday, May 31, 2018 – 11-11:30am
Theme: Improving Training for a Better PLTL
Location: Lewisville

Measuring Peer Leader Performance Using a 360° Evaluation

Isamar Camarena-Ubiera; Daniel Flores; Jose Alberte; Alberto Cruz; Ellen Dow; Roberto Pereira; Thomas Pitzer
Florida International University, Miami, Florida

Peer Leaders (PLs) are mentored and supervised by a PL Mentor Supervisor (PLMS) to ensure appropriate workshop facilitation. The most recent updates to the Supervising Evaluation forms refined the process of analyzing and gauging PL performance; however it did not provide a complete picture of workshop quality. The data from these forms were analyzed and four main themes emerged (Workshop Interactions, Critical Thinking, Time Management, and Effective Presentation). These themes were used as sections in each of the new forms, along with quality assurance questions and general open-ended questions to best reflect PL and workshop performance. The new set of evaluation forms are based on the concept of a 360° Evaluation, modeled after those performed in the business world. The first phase of implementation included training PLMSs to use the new form and conduct a proper field observation. To ensure surveys are comparable, factor analyses, reliability, and validity tests will be performed. The aim of producing this 360° Evaluation is to create valid and reliable methods to evaluate PL performance.

Thursday, May 31, 2018 – 11-11:30am
Theme: Building a PLTL Organization
Location: Carrolton

Chemical Explorations: Guiding Inquiry for Students in PLTL Workshops

Jaime Ayala; Aiyana Ponce; Mark Smith; Aleksander Lazarski; James Becvar; Geoffrey Saupe
University of Texas at El Paso, El Paso, Texas

Each semester Peer Leaders at the University of Texas at El Paso (UTEP) create new learning materials (called Explorations) for active guided inquiry in Peer-Led Team Learning (PLTL) workshops. Explorations are short activities, chemical reactions, or processes that allow students to see and have hands-on experience with chemistry. Explorations are linked to what is currently being taught in lecture and appear in a Peer Leader-enhanced workbook titled Chemistry by Exploration. New explorations are created by the semester-by-semester succession of peer leaders. Giving students a chance to explore chemistry concurrently with the topics being covered in lecture allows students to make personal connections between real life chemistry and lecture content. This helps students own and understand the concepts and connect chemistry

to things they are familiar with, helping students retain the concepts being taught and giving them a greater sense of the abstract topics.

Thursday, May 31, 2018 – 11:30 – 12:30pm

Theme: Improving Training for a Better PLTL

Location: Lewisville

Cultivating Inclusivity in PLTL Workshops

Jennifer Lundmark; Lynn Tashiro; Corey Shanbrom
California State University, Sacramento, California

This workshop will explore variables to consider in the selection, training, and support of PLTL leaders, optimizing an inclusive and responsive learning environment. The Peer-Assisted Learning (PAL) program at Sacramento State uses the PLTL model with diverse, highly trained, and culturally responsive leaders (PAL Facilitators). Results over the past six years are uniformly positive: 20% bump in pass rates and achieved grades for participants, narrowing or closing of the achievement gap, improved self-efficacy, and higher-than-predicted participation by students from at-risk populations (low income, URM, first-generation college students). PAL Facilitators are trained on aspects related to cultural competency, promoting self-efficacy, and providing growth mindset feedback. Facilitators share their own stories of failure and overcoming adversity, and most develop strong mentorship roles with their students. The selection and training of undergraduates who will serve in the Facilitator role is of critical importance. Mechanisms for screening applicants, interviews, and ultimate selection criteria will be addressed, as well as how leadership, empathy, cultural sensitivity, and grit are fostered throughout the program. The PAL program employs 80 highly diverse undergraduates across 16 STEM courses, all of whom conduct action research on student success as part of the program and has gained university funding in large part due to student activism. Workshop activities will challenge participant assumptions and invite discussion about Facilitator selection, training, and assessment, and will demonstrate and dissect the structural components of a university program that empowers and employs students at every level (including program supervision and assessment).

Thursday, May 31, 2018 – 11:30 – 12:30pm

Theme: Assessing and Evaluating the PLTL Experience

Location: Carrolton

Development of Cooperative Learning Through Technology and Interactive Games

Julian Viera; Laura Betancourt; Cesar Dominguez; Adrian Marroquin; Carlos Jimenez; Vivian Torres; Govinda KC; Sumi Dey
University of Texas at El Paso, El Paso, Texas

Researchers have found that computer games can raise intense engagement in learners, encourage learning by doing, and enhance the learning of complex subject matter. In order to develop these characteristics in students enrolled in pre-calculus classes, teaching assistants, with the help of the course coordinator, developed a Jeopardy-like game. The level of difficulty of each problem increased with the point values in the game. The game was used as a review for the course exam. The jeopardy game, which was created using PowerPoint, was implemented in a 2-hour workshop. Upon implementation, results demonstrated a higher than average yield in student participation and activeness during workshops. We found a great impact in the classroom, which has helped in creating and bettering our intended peer-led learning environment. We hope to further support and find alternate forms of peer-led education.

Thursday, May 31, 2018 – 1:45-2:20pm

Theme: PLTLIS Discussion

Location: Richardson/Plano

Discussion Session: Peer Leader Certification, Standards, Practice, and Training

Alice Turchaninova; A.E. Dreyfuss; Mitsue Nakamura; Ana Fraiman

A series of nine initial interviews with PLTL program representatives has found commonalities and great variability in the recruitment, selection, training, and responsibilities of Peer Leaders at different campuses. While all of the surveyed programs start the semester with an orientation session, some provide further training for peer leaders and others do not; there is also no training standard. For another example, weekly workshop sessions vary from 45 to 120 minutes, and not all peer leaders are required to set aside weekly preparation time. The purpose of the interviews is to determine how to develop a certification process, creating a standard among campuses that takes into account local variability in discipline, institutional support, and other factors. This presentation will relay the findings of the interviews and include a discussion with participants on how Peer Leaders and/or PLTL programs could be certified by PLTLIS once standards have been determined.

Thursday, May 31, 2018 – 2:20-3:00pm

Theme: PLTLIS Discussion

Location: Richardson/Plano

Discussion Session: Research on PLTL

Jose Alberte; Alberto Cruz

This discussion will focus on the research centered around PLTL as we learn from the past to build and make recommendations for collaborative studies in the future.

Past: Previous studies analyzing the effects of Peer-Led Team Learning (PLTL) have primarily been focused on the benefits towards the students. Several different methodologies (quantitative, qualitative, and mixed methods) have been used to demonstrate these benefits. In the majority of cases. Having participated in PLTL workshops provides a positive impact. Minimal studies have analyzed the Peer Leader (PL); in those, however, there is also a positive benefit to the PL.

Present: Current studies are focusing more o the PL, to determine more specific benefits acquired from being a PL, including professional skills, employability, and content knowledge gains. Other studies are looking into the creation of valid and reliable instruments for the purpose of better understanding these benefits. Valid and reliable instruments are also being developed to better understand these same benefits in students as well. Phenomenological, ethnographic, and case studies analyses are also being conducted to explore the benefits of specific populations of PLs.

Future: Predictive studies (regression, Discriminant analysis, Structural Equation Modeling, etc.) need to be employed to better identify effects that both participating in PLTL as a student and as a PL can produce. More cross-campus, interdisciplinary studies need to be conducted in order to make the quantitative effects more generalizable across all student populations.

Thursday, May 31, 2018 – 3:30-4:00pm

Theme: Assessing and Evaluating the PLTL Experience

Location: Lewisville

He Said She Said: Faculty and Student Perceptions of the Peer-Led Team Learning Experience

Willian Neris; Volrick Higgs; Orestes Hernandez; Kimberly Lanier
Miami Dade College, InterAmerican Campus, Miami, Florida

In fall 2015, Miami Dade College- InterAmerican Campus (MDC-IAC) was awarded a Title V-Developing Hispanic Serving Institutions grant from the United States Department of Education to expand Peer-Led Team Learning (PLTL) offerings. Since summer 2016 and supported by the Faculty Institute of Teaching and Learning, PLTL is offered to Continuing Education and all eight academic departments campus-wide (Business; Communication, Arts, and Philosophy; Engineering and Technology; Mathematics; Natural Science; School of Education; Social Science; and World Languages). What has become evident over the past two years is that faculty and students come away with different perceptions of the PLTL experience. For example, during the preliminary analysis of Faculty Anecdotal Records and students' Post-PLTL Reflection data, faculty describe students who participate in PLTL as much more vocal and responsive in class whereas students remark that they have a better understanding of the course content but are still somewhat reticent to speak in a whole-class environment. This presentation will therefore examine case studies of three faculty members' PLTL experience. These finding are examined and juxtaposed to how students view their PLTL experience. Post-PLTL Reflection data does support the notion that learning the content is seen as an important part of the PLTL experience. However, equally important were the relationships and friendships that developed as a result of working with and learning from their peers as well as the conceptualization of PLTL sessions as safe spaces where they could hone the skill of speaking in a public forum. Other findings from the analysis will be discussed.

Thursday, May 31, 2018 – 3:30-4:00pm

Theme: Building a PLTL Organization

Location: Carrolton

Updating the Chemistry Workbook to Access Higher Level Thinking

Mark Smith; Ashley Baker; Mariana Gallegos; Jaime Ayala; James Becvar; Geoffrey Saupe
University of Texas at El Paso, El Paso, Texas

At the University of Texas at El Paso the Chemistry Department utilizes a Peer-Led Team Learning approach with 2-hour workshops conducted by a Peer-Leader with a resource workbook, Chemistry by Exploration, as a guide. Since 2012 when the workbook was first used it has become integral to the facilitation of the workshop being broken down into one module for each week of the semester. This last year attempts have been made to update the workbooks to further facilitate learning by adding objectives with actions for student self-assessment, open-ended questions where students must formulate ideas that apply chemistry concepts, adding new hands on explorations that connect chemistry concepts to real world applications, and adding more meaningful review questions. Throughout this process ideas have been explored to try to get students to apply higher level learning to the chemistry workshop and provide the students with more resources to be successful in the course.

Thursday, May 31, 2018 – 4:00-4:30pm

Theme: Assessing and Evaluating the PLTL Experience

Location: Lewisville

Multi-Stream Audio Analysis for Knowledge Extraction and Understanding of Small-Group Interactions in Peer-Led Team Learning

John Hansen
University of Texas at Dallas, Richardson, Texas

Peer-Led Team Learning (PLTL) is a useful sustainable study paradigm implemented in various US universities for undergraduate courses. Recently, PLTL was implemented in other countries such as Israel, Australia and Philippines etc. PLTL have been found effective in many courses. However, some questions on quantifying and improving their effective are yet to be understood. We used wearable LENA microphones are collecting two speech corpora from semester-long undergraduate courses in Chemistry and Mathematics (Calculus). Wearable microphones on each student facilitated collecting multiple-channel audio data. We proposed and investigated audio based approaches for studying the PLTL interactions and summarizing the behavioral and learning attributes from these. Some of the objective audio-based features were (1) word count; (2) leader-follower pattern; (3) acoustic convergence; (4) connecting conversations on various channels. Further details will be presented at the meeting.

Thursday, May 31, 2018 – 4:00-5:00pm

Theme: Improving Training for a Better PLTL

Location: Carrolton

Challenging Implicit Bias: Creating a Comfortable Learning Environment for All Students

Andrea McWilliams; A.E. Dreyfuss; Jessica Guerra; James Becvar
University of Texas at El Paso, El Paso, Texas

Participants will be introduced to the concepts of social identities, some of which underlie the harmful stereotypes to which people are often assigned, and how the impact of stereotyping might harm a student's performance in challenging courses. Participants will share in exercises and discussion regarding implicit bias and will be provided with techniques that can be used by peer leaders. How can challenging stereotypes make you a stronger peer leader? How can we better equip ourselves to be sensitive to various social identities? How does practicing empathy allow for greater student success in challenging courses? Participants will explore how to dismantle implicit biases in order to improve the quality of their workshops and their interactions with students. This will enable participants to develop a strong understanding of how to create a more comfortable learning environment for all students.

Thursday, May 31, 2018 – 4:30-5:00pm

Theme: Assessing and Evaluating the PLTL Experience

Location: Lewisville

Exploring the phenomenon of peer leading through the experience of Group Discussion Peer Leaders: Preliminary Analysis

Jose Alberte

Florida International University, Miami, Florida

Peer-Led Team Learning is a collaborative, team-based learning model with a theoretical foundation in both social constructivism and social equity. One of the key elements for success in a workshop is the well trained and mentored Peer Leader (PL) , who represents the More Knowledgeable Other in a social constructivist scheme. At Florida International University (FIU), the role of the PL in the traditional PLTL model has been redefined to include a tiered approach to PL development. To better understand the experience of the PL a phenomenological case study methodology was designed and is currently being implemented. The aim of this study is to understand the peer leading experience for Group Discussion Peer Leaders (GDPLs) at the PLTL Program at FIU. The peer leading experience will be defined by the former GDPLs through the co-construction of the lived experience of peer leading. Data were gathered through a series of interviews adapted from Moustakas' guiding questions to conduct a phenomenological interview.

Friday, June 1, 2018

Friday, June 1, 2018 – 2:15-2:45pm

Theme: Building a PLTL Organization

Location: McDermott Library 3rd floor: 3.610

The Implementation of a Digital Career Advancement Network for Peer Leaders

Chinedu Chukuigwe

I describe an online network that connects current and former peer leaders with the goal of improving their career prospects regardless of whether they are yet to graduate or have already joined the workforce. The Peer Led Team Learning Career network aims to facilitate interactions that help surface best practices for navigating and advancing through divergent career paths.

Friday, June 1, 2018 – 2:15-2:45pm

Theme: Improving Training for a Better PLTL

Location: McDermott Library 3rd floor: 3.612

Come Out for Your Education: Creating an Inclusive & Welcoming Environment for Higher Education

Alice Turchaninova; Jose Alberte; Juan Oves

University of Houston, Downtown, Houston, Texas; Florida International University, Miami, Florida

There is an increased focus on LGBTQ+ cultural competency training among healthcare providers to address our nation's growing health disparities in these populations. Increasing cultural competency training among professionals also contributes to welcoming and inclusive environments for LGBTQ+ individuals in the education setting. LGBTQ+ youth are disproportionately affected by discrimination and stigma in education, contributing to increased risks of health and mental health problems that affect student academic outcomes. Educators have a window of opportunity to address these challenges through effective training and skills building in LGBTQ+ cultural competency. In particular, PLTL practitioners and Peer Leaders have a unique responsibility to welcome and support LGBTQ+ students in the PLTL environment. This workshop will cover LGBTQ+ cultural competency for higher education with a focus on PLTL.

Friday, June 1, 2018 – 2:45-3:15pm

Theme: Improving Training for a Better PLTL

Location: McDermott Library 3rd floor: 3.610

A Strategy in Learning Organic Nomenclature: Providing a Method for Second Semester General Chemistry Students to Understand the Basic Nomenclature

Cassandra Orozco; James Becvar; Mahesh Narayan

University of Texas at El Paso, El Paso, Texas

In the second semester of general chemistry at the University of Texas at El Paso, students receive an introduction to organic chemistry. A strong foundation starts with the ability to correctly name organic compounds. Our proposed strategy involves the identification of the parent chain, the recognition of resident functional groups, and the ability to discern/indicate the correct isomer if any. Accurately naming an organic compound is essential to understanding of its properties; to success in Organic Chemistry 1 and 2; and, for a career as a Chemist in academia, industry or government. We propose a modular toolbox For PLTL workshop that facilitates compartmentalization of the nomenclature process of organic compounds and helps the student adequately identify all structural elements present in an organic compound. With this process students will cement their learning of nomenclature. The advantages of our procedure are discussed using examples to illustrate the process.

Friday, June 1, 2018 – 2:45-3:15pm

Theme: Beginning a PLTL Program

Location: McDermott Library 3rd floor: 3.612

Developing Learning Communities to Develop Student Self-Directed Learning Through PLTL

Julian Viera; Elsa Villa; Erika Mein; Christina Convertino; Art Duval; Christina Mariani; Peter Golding
University of Texas at El Paso, El Paso, Texas

Research suggests team-based approaches to learning, facilitated by PLTL, fosters self-directed student learning. Using this team-based approach, mathematics and education faculty designed a project aimed at transforming a first-year gatekeeping pre-calculus course into a gateway□ course through the development of student learning communities through the integration of cooperative learning. The 5-credit-hour, pre-calculus course includes a weekly 2-hour workshop, the site of the project, which incorporates technology and PLTL. Peer leaders facilitate group discussions around problem sets to bring forward students' prior knowledge and develop strategies to solve the problems. The aim of this project is to positively impact the academic trajectories of the undergraduate STEM majors enrolled in pre-calculus. Preliminary findings will be presented, which will highlight the positive impact team-based learning and PLTL.

Friday, June 1, 2018 – 3:30-4:30pm

Theme: Impacting my Professional Life: What I Learned from PLTL

Location: McDermott Library 3rd floor: 3.610

Resume Writing and Interviewing 101: Highlighting your PLTL Experience

Marie Schier; Shelley Litwak
University of Texas at Dallas, Richardson, Texas

Your resume is one of the most important tools in securing a job interview. The first half of this interactive workshop will help you to highlight your education and leadership accomplishments and review the basics of resume writing. The second portion of the workshop will focus on interview preparation. Be prepared to practice!

Friday, June 1, 2018 – 3:30-4:30pm

Theme: Assessing and Evaluating the PLTL Experience

Location: McDermott Library 3rd floor: 3.612

Focus Group for: The Development of a Critical Thinking Assessment for General Biology Students: Testing for Reliability and Validity

Nicole Vargas; Richard Suarez; Michael Ramon; Jose Alberte; Thomas Pitzer
Florida International University, Miami, Florida

Critical thinking is a systematic process in which information is manipulated to arrive at an answer or conclusion. This method can be divided into five different components: specific knowledge base, experience, competencies, attitudes and standards. The aim of this study is to assess these components of critical thinking within biology. We developed this assessment with the aim of distributing the instrument to Peer Leaders (PL) in order to evaluate the relationship between the time of exposure to the PLTL model and the critical thinking ability of the PL. This workshop will be conducted as a focus group and will be used as part of the study's validity and reliability methods. This research could help assess the differences in critical thinking skills between PLs and other biology undergraduate non-PLs to establish the effect the PLTL program has on students' critical thinking ability.

Friday, June 1, 2018 –4:30-5:00pm

Theme: Improving Training for a Better PLTL

Location: McDermott Library 3rd floor: 3.610

Lecturing versus Active Learning in PLTL Workshops

Amanda Alfsen; Miriam Campos; Oscar Galindo; Alejandra Belmont
University of Texas at El Paso, El Paso, Texas

Peer-Led Team Learning (PLTL) is an innovative model for active learning that involves peer leader facilitation for small groups of 10-15 students in a workshop organized into teams of two to four students. Workshops in chemistry at the University of Texas at El Paso are designed to provide hands on opportunities for students to apply the principles taught within the lecture. However, a very common problem is the temptation for peer leaders to facilitate learning by simply lecturing (rather than by using team-based strategies), especially when students have allowed themselves to fall behind in the class content. In this study we used exam data to explore the question: does additional lecturing benefit students' understanding as much as hands on activities such as problem solving, games, and explaining a topic to a fellow classmate? This study is a preliminary study aimed at revealing ways to improve PLTL.

Friday, June 1, 2018 –4:30-5:00pm

Theme Beginning a PLTL Program

Location: McDermott Library 3rd floor: 3.612

Collaborative Modeling for Peer Leader's Identification and Training

Claudia Casas
The University of Texas at El Paso, El Paso, Texas

The University of Texas at El Paso uses Peer-Lead Team Learning as a proven practice for retention in Computer Science core courses. Training and continuity of peer leaders could become challenging due to time and resource constraints. This presentation will present the PLTL practices at the University of Texas at El Paso. The latest approaches using cooperative learning will be described with a focus on community building. A demonstration of collaborative modeling will show ways to identify the next generation of peer leaders and to support peer leaders training activities.

Saturday, June 2, 2018

Saturday, June 2, 2018 – 9:30-10:00am
Plenary Session
Location: Allen

Current Directions in PLTL Research and Practice: Steps Towards Sustainability

A.E. Dreyfuss

Pedagogical best practices on a programmatic level in higher education can be found in several models developed over the past fifty years. This presentation will review several models and Peer-Led Team Learning as one whose effects provide continuous benefits for various stakeholders in the academic community. Case examples of its use at five Hispanic-Serving Institutions – in New York, Illinois, Florida, Texas, and California – will be presented. The benefits for students include deeper learning of course material, as well as formation of bonds with other students, and persistence in STEM majors. For peer leaders, selected and trained to facilitate small-group learning, the development of leadership skills, greater confidence, multiple ways of understanding course material, continuation in STEM fields, and working with faculty, has opened doors to greater involvement in the academic community. For faculty, PLTL has provided a means of improving teaching through feedback with Peer Leaders and has promoted interest in working with students in facilitating learning. Sustainability of campus PLTL programs is impeded by resistance to change (including lack of reward systems and the dismissal of data). The effort needed to overcome institutional barriers has prevented broader program development which has demonstrated multiple benefits to students, especially to those challenged by the culture of higher education. Research pathways undertaken through the use of PLTL will be presented, as well as how PLTL provides an effective programmatic pathway to the vision of inclusion and support of student perseverance.

Saturday, June 2, 2018 –10:00-10:30am
Discussion Session
Location: Allen

Discussion Session: Communication & Outreach

Chinedu Chukuigwe

The alumni project is aimed at engaging Alumni of universities across the world who were peer leaders while they attended college. The goal of the project is to get alumni reengaged with the PLTL method through regular news and event announcements and by facilitating interaction amongst alumni and between alumni and current peer leaders. The discussion session focused on describing the aforementioned network and eliciting feedback from student, faculty, and staff attendees. The lively discussion provided input on how PLTLIS could develop the platform into a highly engaging online space that creates a lifelong connection between peer leaders and PLTLIS.

Saturday, June 2, 2018 –10:30-11:00am
Discussion Session
Location: Allen

Discussion Session: Sustaining PLTL Programs by Publishing Course Workbooks

A.E. Dreyfuss, Jim Becvar, Ana Fraiman, Jeff Saupe

Undergraduate students in science and engineering have contributed to the sustainability of the Peer Led Team Learning (PLTL) in General Chemistry I and II at the University of Texas at El Paso (UTEP) for the past six years. The 17-year-old PLTL program, originally grant-funded, is now significantly funded via a self-sustaining, self-funding strategy involving the creation and sale of Workbooks, student-authored learning materials published through a collaborating non-profit publisher. From 2013 to 2018 more than $350,000 has been donated to UTEP using this process and then used for payment, training and professional development of UTEP Leaders. Because of the successful strategy at UTEP, the Peer-Led Team Learning International Society (PLTLIS), a 501(c)(3) non-profit, has further piloted this strategy whereby a team of experienced Peer Leaders and faculty author learning materials that are published as workbooks. The materials represent intellectual property. This IP is donated to PLTLIS which publishes the workbooks and donates revenue after expenses to a university Gift Fund, with the Gift Fund providing a cost center used for paying for PLTL program costs. The first workbook published by PLTLIS is Organic Chemistry 1 from Northeastern Illinois University (Fall 2017), with several more under development. The process of developing the workbooks, marketing, and financing mechanisms will be discussed.