Proceedings for the 14th annual

CONFERENCE ON HIGHER EDUCATION ™

February 9-11, 2022

The Inn at Virginia Tech and Skelton Conference Center

VIRGINIA TECH

Center for Excellence in TEACHING AND LEARNING

About the Conference on Higher Education Pedagogy:

The conference showcases the best pedagogical practice and research in higher education today. Sessions address disciplinary and interdisciplinary instructional strategies, outcomes, and research. Each year we welcome over 500 faculty and instructors in Higher Education dedicated to teaching excellence.

Corporate Sponsors

The Center for Excellence in Teaching and Learning thanks all of the sponsors for their value of and commitment to higher education pedagogy.

Table of Contents

PRACTICE SESSIONS

RESEARCH SESSIONS

POSTER SESSIONS

VENDOR PRESENTATIONS

PRACTICE SESSIONS

A Framework for Incorporating Digital Literacy into Your Course

Kelsey Hammer, Julia Feerrar, Kirsten Dean, Katlyn Griffin, Virginia Tech

As both educators and citizens, we are facing urgent questions about mis/disinformation, digital privacy and security, and ethics in higher education. How do we help our students succeed in an ever-evolving digital world? In this practice session, a team of academic librarians will share broad principles and practical approaches for bringing digital literacy into the college classroom. Participants will also have an opportunity to discuss the challenges they see in their own classrooms and will leave with ideas for incorporating digital literacy into their own teaching.

As digital culture continues to influence our daily lives, questions regarding mis/disinformation, privacy and security, online identity, fair use and copyright, and ethics are both urgent and challenging across higher education. How do we help our students succeed in an ever-evolving digital world? And how do we incorporate what feels like even more content into our already heavy workloads, schedules, and lessons? This session will explore digital literacy, which we have defined at Virginia Tech as "a set of knowledge, tools, and attitudes that empower learners to engage with their digital lives" (Feerrar & Hammer, 2019). Digital literacy practices include using digital tools, communicating online, evaluating online sources, creating and sharing in digital spaces, reflecting on personal responsibility online, and more. Increasingly, instructors are being asked to incorporate digital literacy into their curriculum or finding that it is a necessary priority for their students (Alexander et al., 2017).

In this practice session, a team of academic librarians will share broad principles and practical approaches to bringing digital literacy into the college classroom. We will discuss how digital literacy is increasingly important to share and model with students and how it can be implemented into existing lessons both in practice and principle. For example, flexibility and creativity are essential principles for digital literacy education (Hobbs, 2017). By thinking creatively about assignments and giving students creative choices, instructors can layer digital literacy goals onto existing projects. A research paper or written essay could become a video essay, a podcast, or a Wikipedia contribution in which learners are evaluating and synthesizing information for an authentic, public audience.

Participants will have an opportunity to participate in an example mini-lesson and gain access to a Digital Literacy Framework Toolkit that includes extended background information and lesson planning materials. Participants will also have an opportunity to discuss the challenges they see in their own classrooms and will leave with ideas for incorporating digital literacy into their own teaching.

Alexander, B., Adams Becker, S., Cummins, M., & Hall Giesinger, C. (2017). Digital Literacy in Higher Education, Part II: An NMC Horizon Project Strategic Brief (3.4). The New Media Consortium. https://library.educause.edu/resources/2017/8/digital-literacy-in-higher-education-part-ii-an-nmc-horizon-project-strategic-brief

Feerrar, J. & Hammer, K. (2019). Digital Literacy Framework Toolkit. University Libraries at Virginia Tech. http://odyssey.lib.vt.edu/s/home/item/256

Hobbs, R. (2017). Create to Learn: Introduction to Digital Literacy. Wiley.

A Riff on Content Acquisition Podcasts for Preservice Teachers

Mindy Gumpert, Virginia Wesleyan University

Teacher education programs have a significant responsibility to prepare teachers to work with students with and without disabilities. One technology to augment and support university coursework is content acquisition podcasts (CAPs). CAPs integrate Mayer's Instructional Design Principles to guide the podcast design and instructional delivery. Teacher candidates in three university classes created end of semester group CAPs to demonstrate fact laden information regarding special education using Mayer's principles. This session will share students' podcasts as well as the planning and implementation process and discuss why instructors should consider student created CAPS as a powerful instructional tool.

Universities require a course for general education and special education preservice candidates addressing special education law and characteristics of individuals with disabilities. Technology is infused into every aspect of today's preservice candidates' life, thus, finding engaging technology to supplement content delivery is crucial for enhancing student engagement and retention of information. A content acquisition podcast (CAP) delivers fact-laden content using novel technology (Kennedy et al., 2011). CAPs differ from traditional podcasts in that they are relatively short (i.e., 5-15 minutes) multimedia-based vignettes that use Mayer's Instructional Design Principles (Kennedy et al., 2016; Mayer, 2008). Also, in the current presentation, the term podcast describes a form of audio-only communication that allows users to create, distribute, and share audio content online.

Several of Mayer's instructional design principles are included in the student podcasts presented in this session. Mayer's principles suggest learning is enhanced when (a) irrelevant or extraneous information is excluded, (b) explicit cues are provided, (c) presentations are divided into short bursts, (d) narration is presented in a conversational style, (e) carefully selected words or short phrases are used, and (f) instructional messages contain an orienting message (Kennedy et al., 2016, Mayer, 2008). CAPs offer learners a supplement to existing instruction.

Students' production of the CAP rather than the instructor's production of the CAP demonstrates additional way to use CAPS in a university classroom. Three university classes (i.e., one in-person, one hybrid, one asynchronous) created end of course podcasts to demonstrate their content knowledge, rather than taking a midterm and final 50 question, multiple choice exam. An outline for episode content of the podcast and a rubric was provided in addition to instruction on use of the Anchor application for producing and uploading the podcast to the Anchor website. Student podcasts utilized several of Mayer's Instructional Design Principles. Anecdotally, student comments suggested the project-based learning assignment was not only motivating (Wu et al., 2008) in providing an engaging activity for group work, but also a more impactful way to synthesize, recall, and retain course content. In a study by Kennedy et al (2016), students who learned using CAPS reported having higher levels of positive motivation in addition to improving their knowledge.

Kennedy, M. J., Hart, J. E., Kellems, R. O. (2011). Using enhanced podcasts to augment limited instructional time in teacher preparation. Teacher Education and Special Education, 34, 87-105. doi:10.1177/0888406410376203

Kennedy, M. J., Wagner, D., Stegall, J., Lembke, E., Miciak, J., Alves, K. D., Brown, T., Driver, M. K., & Hirsch, S. E. (2016). Using Content Acquisition Podcasts to Improve Teacher Candidate Knowledge of Curriculum-Based Measurement. Exceptional Children, 82(3), 303-320. https://doi.org/10.1177/0014402915615885

Mayer, R. E. (2008). Applying the science of learning: Evidence-based principles for the design of multimedia instruction. American Psychologist, 63, 760-769. doi:10.1037/0003- 066X.63.8.760

A Strengths-Based Approach to Trauma in the Classroom

Iana Amiscaray, American University

Research shows that the effects of trauma are prevalent and a common barrier to student learning. Often, however, trauma goes unaddressed or worse, is re-triggered by an event in the classroom unbeknownst to the instructor and other students. In this session, participants will learn about the impacts and signifiers of trauma in the classroom, as well as, how to redress these barriers using a strengths-based approach. By the end of the session, participants will be able to employ a trauma-informed empowerment model to improve student learning outcomes.

Trauma-informed educational practices (TIEP) have gained growing attention in the post-secondary classroom, most especially during the ongoing, collective trauma known as the COVID-19 pandemic. In 2013, before the pandemic, the National Council for Mental Wellbeing estimated that 70% of adults in the U.S. had at least one experience of a traumatic event in their lives. Among students entering college, 66% to 85% report experiencing or being affected by trauma (Davidson, 2017, p.5). Left unmitigated, the effects of trauma can be detrimental to student learning and skill development in higher education, not to mention the overall health and well-being of students.

The purpose of this practice session is to move educators beyond knowing about trauma in the classroom to proactively addressing the effects of trauma to improve student learning outcomes. As Carello (n.d.) posits,

"To be trauma-informed in the context of teaching and learning about trauma and other sensitive subjects means a) to understand the ways in which violence, victimization, and other forms of trauma can impact all classroom members, and b) to use that understanding to inform course content, policies, and practices for two main purposes: 1) minimize the possibilities of (re)traumatization and/or (re)victimization, and 2) maximize the possibilities of educational success" (p.2).

Through a trauma-informed lens, we first recognize that everybody responds differently to trauma, and often in multiple ways. In the classroom, trauma can manifest as: difficulty focusing, attending, or retaining information; chronic absences; difficulty with emotional self-regulation; and withdrawal or dissociation among other indicators (Horan and Dagne, 2021; McCurtrie, 2020). Shifting to our trauma-informed lens, we stop asking "what's wrong with you?" (deficit-mindset) to "what happened to you, and how can I be of support?"

So, what can we do in the classroom to help our students navigate healing from trauma and succeed academically?

In this session, participants will reflect on: a) the impact that trauma, violence, and chronic stress have on our bodies as educators and students; b) their role as a trauma-informed educator; and, c) strengths-based strategies to counterbalance the effects of trauma and emphasize resilience in the classroom. Based on evidence from the literature, the presenter will demonstrate practical, asset-based strategies to redress barriers for students dealing with or healing from trauma. Through reflective pair and group activities, participants will have the opportunity to evaluate case studies and their past experiences with students, and then apply techniques relevant to their own praxis. By the end of the session, participants will:

1.) Have recognized an instance in which they have worked with a student(s) who has experienced violence, trauma, or chronic stress
2.) Have assessed their own practices and identified instructional areas of improvement
3.) In groups, have practiced assessing students' strengths/assets and developed practical strategies to support students in their learning
4.) Be able to employ a trauma-informed empowerment model for their own courses.

Anderson, E.M., Blitz, L.V., & Saastamoinen, M. (2015). Exploring a school-university model for professional development with classroom staff. School Community Journal, 25(2), 113-134. Retrieved May 21, 2021, from https://eric.ed.gov/?id=EJ1085667

Carello, J. (n.d.). Carello rationale for TI definition, principles and objectives. University at Buffalo, School of Social Work. http://socialwork.buffalo.edu/content/dam/socialwork/home/teaching-resources/1-1-Carello-rationale-for-TI-definition-principles-objectives.pdf

Carello, J., Butler, L.D. (2015). Practicing what we teach: Trauma-informed educational practice. Journal of Teaching in Social Work, 35(3), 262-278. http://www.doi.org/10.1080/08841233.2015.1030059

Davidson, S. (2017). Trauma-informed practices for post-secondary education: A guide. Education Northwest. Retrieved September 16, 2021, from https://educationnorthwest.org/resources/trauma-informed-practices-postsecondary-education-guide

Harrison, N., Burke, J., Clarke, I. (2020). Risky teaching: developing a trauma-informed pedagogy for higher education. Teaching in Higher Education. http://www.doi.org/10.1080/13562517.2020.1786046

Honsinger, C., Brown, M.H. (2019). Preparing trauma-sensitive teachers: Strategies for teacher educators. Teacher Educators' Journal, 12, 129-152. Retrieved May 21, 2021, from https://eric.ed.gov/?id=EJ1209431

Horan, E., and Dagne, M. (2021, August 11). A Trauma-Informed Fall 2021 Semester. [PowerPoint slides]. The Center for Teaching, Research & Learning.

National Council for Mental Wellbeing. (2013). How to Manage Trauma [Infographic]. https://www.thenationalcouncil.org/wp-content/uploads/2013/05/Trauma-infographic.pdf?daf=375ateTbd56

A Three-Step Meditation Practice for the University's Post-Pandemic Community

Jacqueline (Jakki) Williams, North Carolina A&T University

Empirical studies report an increased level of stress due to Covid 19 amongst the public in general and college students in particular. In response to pandemic stress, college students report that meditation is one activity used to reduce their stress (Wang et. Al 2020). However, meditation can also be perceived as overwhelming, challenging, or unattainable for many people. In this session the "Sura Flow" practice is offered as a simple three step process to harness the benefits of meditation (Kim 2021). The science, practice, and benefits of a three-step meditation practice will be discussed and experienced.

University campus communities around the world are on alert to the ongoing changes that we continue to face and have already been brought to us by the Pandemic. Some changes like social distancing, mask wearing, hand sanitizing and vaccinations we have integrated into our lives. Other changes may be subtler and not fully manifested in our consciousness or our external environments - how we interact in public spaces, our preferences for educational options (hybrid, online, synchronous, asynchronis0, how many hours we spend on ZOOM.

We all have changed - students, faculty, staff and administrators - our families and friends our institutions. We are all in this together. So as we move forward we can collectively build our community with contemplative practices for our Post Pandemic "New Normal" campus experiences. In this session we will 1) describe contemplative practices as an accommodating interface for our post pandemic new normal campus experiences, 2) share our experiences with contemplative practices and 3) practice together as a community a brief contemplative practice inducing a three step process of 1) relaxation, 2) heart listening, and 3) intention setting for intuitive insight and healing will be discussed and experienced.

What are contemplative practices? Contemplative practices are communication, connection, and awareness activities that we undertake to intentionally cultivate awareness and develop a stronger connection to our surroundings and our inner wisdom such as:

- Stillness- SILENCE, CENTERING, QUIETING THE MIND, MEDITATION
- Generative - LOVING KINDNESS, VISUALIZATION
- Creative- MUSIC & SINGING, JOURNALING,
- Activist- PILGRIMAGES, VOLUNTEERING, MARCHES
- Relational- DIALOG, CIRCLES, STORYTELLING
- Movement- LABYRINTH WALKING, YOGA, DANCE, QIGONG
- Ritual- CEREMONIES, RETREATS, CREATING PERSONAL SACRED SPACE

Contemplative practices are a growing way to address stress. As we all know stress can impact us physically, mentally, socially, and spiritually. Symptoms can range from headaches, muscle tension, irritability, sleep disturbance, eating disorders, fatigue and we can easily go on. So what are we to do? It appears that there is no escape from stress and its effects... If you are human you experience stress. We know it is important to de-stress in order to reduce the likelihood of experiencing debilitating stress symptoms.

Stress is being tackled by medical and psychological clinical practitioners and Researchers, spiritual guides, and educators and leaders from all walks of life suggesting that contemplative practices like conscious breath-work, meditation and mindfulness can help. Benefits of Contemplative Practices include stress reduction, enhanced attention and awareness abilities, improved self-regulation, enhanced empathy awareness

Meditation can be defined as a self-regulation strategy shown to be related to very positive psychological and physical outcomes - inducing the famous "relaxation response (Herbert Benson of Harvard's' Mind/Body Institute credited with many decades of research on the body's relaxation response via a study of brain waves, blood pressure, heart rate etc.

Here are the three steps that we will use in our contemplative practice of flow meditation: Step#1 relaxation, Step #2 heart listening, and Step #3 intention setting. These are steps provided in the book "Sura Flow: 3 Steps to Effortless Meditation & Unexpected Miracles.

Investigating Mental Health of US College Students During the COVID-19 Pandemic: Cross-Sectional Survey Study
J Med Internet Res 2020;22(9):e22817
Wang X, Hegde S, Son C, Keller B, Smith A, Sasangohar F (2020)

Active Learning: The Beckoning Kitchen Table

Katy Brandt, John Linn, Highpoint University

Active learning suggests the enlistment of active, affective, and psychomotor learning through the process of adding context to inquiry through shared personal perspectives to fuse solutions that embody empathy, value, and engagement.

This session will explore active learning through a pair of activities mirroring conversational pedagogy which centers around peer-based problem-solving and promotes active, affective, collaborative, and psychomotor engagement.

Operating within the context of the built environment, activities will model this process, share findings within the session, and engage participants in forms of visualization through graphic and physical exploration.

Active learning suggests the enlistment of active, affective, and psychomotor learning through the process of:

- Connecting the passive world of the student experience while blending the individual perspective
- Reacting to a question with personal perspective, resonating to a problem statement, and responding to inquiry
- Adding context to inquiry through shared personal perspectives to fuse solutions that embody empathy, value, and engagement.

The larger goals of 'learning how to learn' and creating a collaborative design community formed the basis for this exploration. Student-centered engagement and contribution focus on use of technology and reimagined pedagogy as tools to change the culture of teaching and learning, and collaborative methodologies

The metaphor of the beckoning kitchen table is the connector or hub that allows students to contribute and collaborate as peers. It facilitates the ebb and flow of a truly collaborative space and gives students pride of place and a sense of belonging with their peers. Team and Project-Based approaches as described by Mazur stimulated the instructional technique in which informational transfer is no longer faculty centered. According to Alan November, where traditional educational models feature single audiences, a system of reward and punishment, and learning how to be taught, digital learning is a way to put the responsibility of learning in the hands of the student through increased collaboration, contribution, and research.

The centerpiece of this pedagogy is students working collaboratively in groups of three or four in partnership to complete both analogical and digital work. The intent behind this model is building relationships between students and content at a meaningful scale. We are naming this group model the Beckoning Kitchen Table. This framework employs multiple digital platforms to accomplish these goals.

This session will explore active learning through a pair of activities mirroring conversational pedagogy which centers around peer-based problem-solving and promotes active, affective, collaborative, and psychomotor engagement.

Operating within the context of the built environment, activities will model this process, share findings within the session, and engage participants in forms of visualization through graphic and physical exploration.

Gurung, R., Chick, N., & Haynie, A. (2009). Exploring signature pedagogies: Approaches to teaching disciplinary habits of mind (1st ed. ed.). Sterling, Va.: Stylus Pub.

It's About Learning. (2015). The Head Won't Go where the Hearth Hasn't Been. Retrieved August 27, 2018 from http://harapnuik.org

Mazur, E. (2014). Peer instruction: A user's manual (Pearson new international edition. ed., Pearson custom library). Harlow, Essex: Pearson

November, A. (2012). Who owns the learning?: Preparing students for success in the digital age. Bloomington, IN: Solution Tree Press.
Wiggins, G., & McTighe, J. (2005). Understanding by design (Expanded 2nd ed, [Nachdr.]. ed.). Alexandria, Va.: Association for Supervision and Curriculum Development.

Authentic Teaching: What it is and why/how to do it!

Hannah Shinault, Virginia Tech

Have you ever felt like a fraud in your classroom or felt pressure to chase the latest student engagement fad? This session is for you! Learn what authentic teaching is, how to do it, and why it's beneficial for both your and your students!

Authentic teaching (or teacher efficacy) is exactly what it sounds like--being true to your real "teaching self." This movement has gained traction over the past decade in K-12 education (Goldberg, 2019), and this session brings these principles into the higher education classroom.

Authentic teaching is a process that begins with identifying your core beliefs and understanding how they manifest in your teaching practice, considers how to align your teaching practice with your core beliefs, and feeds back into itself as you identify areas for growth and incorporate new knowledge into your core beliefs.

Teacher efficacy is one of the main influences that has an impact on student achievement (Hattie, 2016) so it's important for instructors to build efficacy since it's beneficial to both instructors and their students.

This presentation will give participants an overview of the process and types of teaching practice to consider. The session will conclude with activities that help participants identify their core teaching values and allow them to practice with tools to help them incorporate those values into the courses they teach.

At the end of the session, participants will be able to:

1. Describe authentic teaching
2. Identify core teaching values
3. Design course materials that reflect their core teaching values.

Donohoo, J. (2016). Collective efficacy: How educators' beliefs impact student learning. Thousand Oaks, CA: Corwin.

Goldberg, G. (2019). Teach like yourself: How authentic teaching transforms our students and ourselves. Thousand Oaks, CA: Corwin.

Hattie, J. (2016). 195 influences and effect sizes related to student achievement. Retrieved on 1 September 2021 from https://visible-learning.org/hattie-ranking-influences-effect-sizes-learning-achievement/.

Protheroe, N. (2008). Teacher efficacy: What is it and why does it matter? Principal, 87(5), 42-45

Avoiding the pitfalls of ethics projects in gen-ed courses

Andrew Marx, Virginia Commonwealth University

This session will explore concepts and strategies for avoiding some of the pitfalls of assigning ethics research papers. Traditional assignments that prompt students to address controversial ethical and political issues pose a number of difficulties, including confirmation bias and motivated reasoning. These difficulties hinder critical and reflective thinking on such issues, and often leave students in more entrenched or extreme positions than when they started. However, there are promising alternatives to straightforward ethical debate that can advance ethical reasoning skills in the context of research writing. This session will provoke serious thought on new approaches.

When the beliefs of individuals are deeply rooted in value judgments, they can become highly resistant to persuasion (Johnson & Eagly, 1989). How can students be tasked with handling divisive and polarizing normative issues when barriers to critical thought arise?

This session will explore concepts and strategies for avoiding some of the pitfalls of assigning ethics research papers. Traditional assignments that prompt students to address controversial ethical and political issues tend to face a number of problems:

- Student research on normative issues is highly susceptible to confirmation bias and motivated reasoning (Hart et al., 2019).
- Argumentative research papers on normative issues tend to take a "grab-bag" approach to supporting claims. Students often make cases for positions by cribbing arguments without much analysis or reflection.
- Partisan and ideological arguments are abundant, even in peer-reviewed literature
- In many university climates, there is considerable social pressure now to support some views and disavow other positions. While some views are unpopular for good reason, social pressure may stifle curiosity.

These difficulties hinder critical and reflective thinking on ethical issues, and often leave students with even more entrenched or extreme positions or views (Vydiswaran et al, 2015). However, there are promising alternatives to straightforward ethical debate that can advance ethical reasoning skills in the context of research writing. This session will provoke serious thought on new approaches.

One featured approach will be a strategy that emphasizes "comparative evaluation" of normative arguments. Assignment prompts can encourage less biased approaches to normative issues by emphasizing the task of evaluating and comparing the merits of different arguments for a given position on a controversial issue (while de-emphasizing the importance of taking and defending a position. On the topic of abortion, for example, a student's task would be to explain why one argument for pro-choice is stronger or weaker than others. While many students may be intractable in their views (and exposing them to counterexamples often just makes them dig in further), they can recognize that some arguments in support of their position are weaker than others.

This approach can be introduced as a collaborative activity, which may be modeled in the session. Rather than attempting to debate a hot-button issue or work toward consensus on a position, students with different positions can instead work toward consensus on the relative merits of "pro" arguments and the relative merits of "con" arguments.

Participants in the session will come away with:

- Greater understanding of confirmation bias, motivated reasoning and the risks they pose for inquiry projects
- Ideas for mitigating these risks in their own curriculum and assignment design
- New foundations for innovations in inquiry projects on normative issues

Hart, W., Albarrac D., Eagly, A. H., Brechan, I., Lindberg, M. J., & Merrill, L. (2009). Feeling validated versus being correct: a meta-analysis of selective exposure to information. Psychological bulletin, 135(4), 555-588. https://doi.org/10.1037/a0015701

Johnson, B. T., & Eagly, A. H. (1989). Effects of involvement on persuasion: A meta-analysis. Psychological Bulletin, 106(2), 290-314. https://doi.org/10.1037/0033-2909.106.2.290

Vydiswaran, V. V., Zhai, C., Roth, D., & Pirolli, P. (2015). Overcoming bias to learn about controversial topics. Journal Of The Association For Information Science & Technology, 66(8), 1655-1672. doi:10.1002/asi.23274

Balancing on quicksand: Teaching with flexibility, compassion, and community during COVID-19.

Gabi Martorell, Taryn Myers, Sherry Matis, Virginia Wesleyan University

The uncertainties and shifting sands of the COVID-19 pandemic has led most American colleges and universities to experiment with new instructional modalities, bringing new challenges. Today we focus on lessons emerging from this process, centered around a discussion of essential interpersonal components for teaching successfully during uncertain times. In this roundtable, we will discuss how we (a research librarian, remote faculty, and faculty teaching in a hy-flex model) were able to navigate the new teaching and learning environment and meet our goals of flexibility, compassion, and community. We also welcome you to share your thoughts and perspectives with ours.

In March of 2020, the World Health Organization (WHO) declared COVID-19 to be a pandemic. The following academic years would be marked by the continued presence of the virus and unprecedented school closures on a global scale. Even now, more than 888 million students worldwide continue to experience shutdowns and school closures (Alhattab & Thompson, 2021). Higher education has not been immune to the effects of the pandemic. Most American colleges and universities switched to fully online courses during the first waves of the pandemic and continue to experiment with different instructional modalities.

Virginia Wesleyan University (VWU) likewise altered its course formats during the pandemic. In the 2020/2021 academic year, some faculty taught face-to-face. Other faculty taught with hybrid approaches, with fewer class meetings and some degree of work shifted online. And last, faculty also taught fully online courses. Academic and support programs, too, were forced to shift their practices. Lockdowns and quarantine meant most meetings had to be remote. Some programs, such as student support services and the library, had to creatively collaborate to find solutions.

The shifting sands of the pandemic have led to a stressful, chaotic period in academia. But over time, certain lessons have emerged from that chaos. Although the proper technological equipment and access to high quality internet is essential for effective teaching (Shim & Lee, 2020), we leave those important physical features for another day. Today's discussion will be framed by three of what we believe to be essential interpersonal components for teaching successfully during uncertain times.

First, flexibility is key. Research has shown students, especially women, benefit when they perceive their faculty as flexible (Gelles et al., 2020). For example, students appreciate when faculty are willing to provide accommodations and choices and are flexible in their grading practices, particularly when that flexibility is incorporated into the instructional design (Debose et al., 2020).

Second, a compassionate approach is important. Data collected from American college students during the pandemic reveal alarming levels of depression, anxiety, and/or suicidal thoughts (Wang et al., 2020). Both formal (e.g., counseling centers) and informal (e.g., expressing empathy) support can help students manage the increased pressures of the pandemic (Tull et al., 2017).

Last, it is important to cultivate a sense of community. A sense of belonging has been associated with increased student engagement (Gillen-O'Neel, 2019). Student engagement is particularly important in online environments (Bollinger & Martin, 2018), and is associated with student satisfaction, persistence, and academic outcomes (Meyer, 2014). Creating a sense of community is always important, however, during a time in which physical distancing is a necessity and during which people are experiencing increased stress and anxiety it becomes even more so.

In this roundtable, we will discuss how we (a research librarian, a remote faculty and a faculty teaching in a hy-flex model) were able to navigate the new teaching and learning environment and meet our goals of flexibility, compassion, and community. We also welcome you to share your thoughts and perspectives with ours.

Session Questions:

- What other interpersonal characteristics do you think are important for teaching during uncertain times?
- Where do we draw the line between being flexible and compassionate and remaining true to our teaching and learning standards?
- What specific tools or techniques did you use to engage students during COVID-19?
- Which of the changes in your teaching philosophy or tools do you think should or will persist past the pandemic?

Alhattab, S., & Thompson, G. (2021). COVID-19: Schools for more than 168 million children globally have been completely closed for almost a fully year, says UNICEF. [Report]. Unicef. Retrieved from https://www.unicef.org/press-releases/schools-more-168-million-children-globally-have-been-completely-closed

Bolliger, D. U., & Martin, F. (2018). Instructor and student perceptions of online student engagement strategies. Distance Education, 39(4), 568-583.

Debose, C. D., Nelson, R., Gaskill, M. & Mollenkopf, D. (2020). Navigating a "new normal" during the COVID-19 pandemic: college student perspectives of the shift to remote learning. International Journal of Technologies in Higher Education, 17(2), 67-79.

Gelles, L. A., Lord, S. M., Hoople, G. D., Chen, D. A., & Mejia, J. A. (2020). Compassionate flexibility and self-discipline: Student adaptation to emergency remote teaching in an integrated engineering energy course during COVID-19. Education Sciences, 10(11), 304.

Gillen-O'Neel, C. (2021). Sense of belonging and student engagement: A daily study of first-and continuing-generation college students. Research in Higher Education, 62(1), 45-71.

Meyer, K. A. (2014). Student engagement in online learning: What works and why. ASHE higher education report, 40(6), 1-114.

Shim, T. E., & Lee, S. Y. (2020). College students' experience of emergency remote teaching due to COVID-19. Children and youth services review, 119, 105578.

Tull, S., Dabner, N., & Ayebi-Arthur, K. (2017). Social media and e-learning in response to seismic events: Resilient practices. Journal of Open, Flexible and Distance Learning, 21(1), 63-76.

Wang, X., Hegde, S., Son, C., Keller, B., Smith, A., & Sasangohar, F. (2020). Investigating mental health of US college students during the COVID-19 pandemic: cross-sectional survey study. Journal of medical Internet research, 22(9), e22817.

Best Practices in the Construction of Multiple-Choice Questions

Brian Hill, Edward Via College of Osteopathic Medicine

As instructors, we test our students regularly, often utilizing multiple choice exams. Many of us merely imitate our former instructors in terms of constructing multiple choice questions as we have had had no formal training in this area. This session will focus on writing better exam questions by presenting the best practices for construction of multiple-choice questions, and how to write items that test on higher cognitive levels. Particular emphasis will be placed on the item writing guidelines used by standardized exams such as the Medical College Admissions Test (MCAT) or Graduate Record Exam (GRE).

Multiple choice questions (MCQs) are ubiquitous to high stakes educational exams (ex. GRE, SAT, MCAT, etc.), most licensure exams and continuing education courses. They are heavily used in many academic disciplines, particularly health-related disciplines. MCQs provide unparalleled efficiency in testing large numbers of examinees in a wide breadth of content.

When constructed properly, MCQs can assess content knowledge at the levels of comprehension and application, and they can even be utilized to assess at higher orders of Bloom's taxonomy. As such, they can effectively discriminate between high, medium, and low achieving students (1).

A survey of the literature produces over forty principles of MCQ construction, and these are well documented in educational textbooks (2-4). Item writing manuals for profession licensure exams are often concise and practical sources for best practices in MCQ construction. Technically flawed MCQs can affect the validity and reliability of the MCQ (5) and can have a negative influence on student performance (6). In spite of this, very few college faculty are trained in the best practices for writing multiple choice questions and this even holds true in disciplines where MCQs dominate exams. This lack of formal training results in poor construction quality and an abundance of MQCs written to test lower cognitive levels or obscure, unimportant factoids (7,8)

The literature contains multiple studies illustrating the faculty improvement following MCQ writing workshops (7, 9-11). While this proposed CIDER session will not be the equivalent to a full-fledged MCQ writing workshop, it will focus on correcting the most common technical flaws and how to write MCQs that test to higher cognitive function.

Kemp JE, Morrison GR, Ross SM. Developing evaluation instruments. In: Designing Effective instruction. New York, NY. MacMillan College Publishing, 1994. 180-213.

Gronlund NE. Assessment of student achievement. Boston, Mass: Allyn & Bacon, 1998.

Haladyna TM, Downing SM, Rodriguez MC. A review of multiple-choice item-writing guidelines. Appl Meas Educ 2002;15:309 -333

Case SM, Swanson DB. Constructing written test questions for the basic and clinical sciences. Philadelphia, Pa: National Board of Medical Examiners, 1998

Campbell DE. How to write good multiple-choice questions. J Paediatr Child Health 2011;47:322-5

Downing SM. Construct-irrelevant variance and flawed test questions: do multiple-choice item-writing principles make any difference? Acad Med 2002;77(10):S103-4

Wallach PM, Crespo LM, Holtzman KZ, et al. Use of a committee review process to improve the quality of course examinations. Adv Health Sci Educ 2006;11(1):61-68.

Campbell DE. How to write good multiple-choice questions. J Paediatr Child Health 2011;47:322-5

Dellinges MA, Curtis DA. Will a Short Training Session Improve Multiple-Choice Item-Writing Quality by Dental School Faculty? A Pilot Study. J Dental Education 2017;81(8): 948-955

Iramaneert C. The impact of item writer training on item statistics of multiple-choice items for medical student examination. Siriraj Med J 2012;64(6):178-82

Naeem N, Van der Vleuten CPM, Alfaris EA. Faculty development on item-writing substantially improves item quality. Adv Health Sci Educ 2012;17(3):369-76.

Beyond Pronouns: Meeting Transgender Student Needs in First-Year Courses

Katie Waddell, Auburn University at Montgomery

Join this workshop on best practices for creating environments of belonging for transgender students in first-year courses. We know that transgender students are 2-4 times more likely to experience negative mental health than their peers and that LGBT students in general are at higher risk of attrition in college. Research shows that interventions in first-year courses can help students persist toward graduation. This practice session seeks to provide research-based best practices for creating trans-inclusive classroom environments in first-year courses with the goal of supporting transgender students as they transition into higher education.

The purpose of this practice session is to discuss the particular needs of first-year transgender students (including students identifying as transgender, non-binary, genderqueer, and/or gender non-conforming), provide research-based best practices for creating environments of belonging, and engage in active learning through dialogue. At the end of the session, participants will walk away with specific practices, lessons, and tools for creating transgender-inclusive classrooms.

Attention to the experiences of transgender students has increased in recent years. Many instructors and higher education professionals are modeling transgender inclusion by including their pronouns in e-mail signatures and acknowledging the existence of transgender people. This is a good start, but the challenges transgender students face are wide-sweeping and, unfortunately, in some cases are increasing as resistance to transgender inclusion in education is on the rise. For instructors who are invested in creating classrooms where transgender students feel they belong, there are approaches we can take to increase these feelings of belonging, as well as assess and address issues particular to transgender students.

The main issues that contribute to attrition for transgender students are negative mental health and financial problems. While there may be little instructors can do to address financial issues, research shows that interventions in first-year courses can promote mental health, emotional resilience and student retention. While many transgender students report that school is often a locus of traumatic experiences, they also indicate that supportive teachers have a significant impact on their emotional well-being. First-year courses are an important contact zone for assessing what transgender students need to succeed at college, building inclusive learning environments for all students, and laying the ground work for a college experience where transgender students feel they belong.

This practice session will begin with a discussion of the current state of affairs regarding transgender students in higher education--what challenges they face, what they need, and what obstacles instructors may encounter in meeting those needs. This discussion will be followed by a workshop-style conversation during which participants may share their experiences working with transgender students in the classroom. The presenter will provide research-based practices for building environments of belonging that may be applied in various disciplines at the first-year level. Finally, participants will be invited to collaborate and generate additional resources for building environments of belonging.

Deliso, Meredith. "'Catastrophic' number of state bills target transgender youth, advocates say." ABC News, 7 March 2021, https://abcnews.go.com/US/catastrophic-number-state-bills-target-transgender-youth-advocates/story?id=76138305

Eisenberg, Daniel, Sarah Ketchen Lipson, and Julie Posselt. "Promoting Resilience, Retention, and Mental Health." New Directions for Student Services, no. 156, pp: 87-95. https://deepblue.lib.umich.edu/bitstream/handle/2027.42/135584/ss20194.pdf?sequence=1

Lipson, Sarah Ketchen, et al. "Gender Minority Mental Health in the U.S.: Results of a National Survey on College Campuses." American Journal of Preventive Medicine, vol. 57, no. 3, 2019, pp. 293-301, https://www.ajpmonline.org/article/S0749-3797(19)30219-3/fulltext.

Mancini, Olivia. "Attrition Risk and Resilience Among Sexual Minority College Students." Columbia Social Work Review, vol. 2, pp. 8-22.

Stolzenberg, Ellen Bara, and Bryce Hughes. "The Experiences of Incoming Transgender College Students: New Data on Gender Identity." Liberal Education, vol. 103, no. 2, 2017, https://www.aacu.org/liberaleducation/2017/spring/stolzenberg_hughes.

Beyond the Discussion Board: Engaging Activities for the Online

Jeanne Hopkins, Tidewater Community College

Oftentimes, discussion boards seem like the only activity to use in our learning management systems. While they are great, this presentation provides participants with many hands-on, fun, and engaging activities for online students to explore, analyze, and create with course concepts. A QR code is provided for participants to access samples/templates to edit to their own courses.

There is little empirical research on how faculty attain knowledge and experiences in their roles as teachers and to what degree these repertoires of pedagogical methods influence classroom practices (Hora & Oleson, 2014). The research that does exist presents a problematic scenario. Pedagogical information is not as prolific as technology related professional development. This does not effectively support instructors (Schlager & Fusco, 2003). Without any form of pedagogical training organized for faculty, they may not be aware of better teaching practices, and they may feel that they are effective and student-centered teachers. According to Elmore et al. (1996), "teachers' practices are unlikely to change without some exposure to what teaching actually looks like when it's being done differently" (p. 34). Derek Bok's 2006 study, Our Underachieving Colleges: A Candid Look at How Much Students Learn and Why They Should be Learning More. explored a study that shows 45% of 2,300 students showed no significant improvement in critical thinking skills during the first year and a half of college (Fink, 2003). Nearly half of college students are not developing higher order thinking skills is problematic. This can be attributed to the current practices in higher education. Students learning needs are not being met; there is a primary use of lectures, an absence of interaction, and a deficiency of hands-on learning opportunities (Fink, 2003). Hands on learning is imperative for students to retain information.

Creating a Digital Learning Community for Online and Blended Courses

Hong Wang, Northern Virginia Community College
Dawn Hathaway, George Mason University

A digital learning community connects people and engages all members for active participation and contribution using technology towards the same academic goals. This presentation shares how to integrate strategies and tools to create a digital learning community for online and blended courses guided by a theoretical framework. It will begin with a theoretical framework to guide practices in online and blended courses, followed by strategies and tools to create a digital learning community using the framework, and end with an interactive activity and discussion. All attendees will take away practical ideas and free resources for application in online teaching.

It is essential, with physical separation of instructors and students in online and blended courses, to create a learning community in which all students can actively participate and learn. While technology has enabled possibilities for interaction and collaboration in the online environment, how to integrate technology into teaching to create engaged learning experience for students in online and blended courses still remains a question to many of us.

The community of inquiry has been widely used in the design and study of online environments (Garrison, 2017; Halverson et al., 2014). Garrison et al. (2000) first introduced this framework through their own work on computer-based conferencing, and it is the "most widely referenced framework associated with the study of online and blended learning" (Garrison, 2016, p. 68). The framework suggests that deep and meaningful learning results when there is evidence of sufficient levels of the various component presences composed of social presence, cognitive presence, and teaching presence.

Anderson et al. (2001) defined social presence as the extent to which a learner's true self is projected and perceived in an online course. It is composed of three subfactors: affective expressions, open communication, and group cohesion. Cognitive presence is defined as the extent to which learners can construct and confirm meaning through collaboration and reflection in a learning community. It consists of four subfactors: triggering event, exploration, integration, and resolution. Teaching presence is defined as the design, facilitation, and direction of cognitive and social processes to realize personally meaningful and educationally worthwhile learning outcomes. It is made of three subfactors: design and organization, facilitation of discourse, and direct instruction.

This practice session, guided by the community of inquiry framework, will share different strategies and tools to create a learning community for online and blended courses. While some ways can be used to enhance social presence and cognitive presence, some can be utilized to enhance teaching presence. By enhancing the three presences in online and blended courses, students will feel more connected and gain meaningful learning experience through engagement in the online learning community. After the session, participants will be able to

- explain the community of inquiry framework
- develop learning activities with digital tools to create an engaged online learning community
- locate free technology resources to enhance online interaction and collaboration

The session will introduce a theoretical framework to guide practices in online and blended courses, followed by strategies and tools to create an online learning community using the framework. The presenters will share real-world examples from their teaching and discuss how the examples connect to community building to engage students in online and blended learning. The presenters will end the session by engaging participants with an interactive activity for reflection, questions, and peer sharing.

Both presenters have taught undergraduate and graduate courses in instructional design and technology, face-to face, online and blended. They have facilitated professional development programs for higher education faculty and K-12 teachers, using a variety of strategies related to digital tools.

Anderson, T., Rourke, L., Garrison, D. R., & Archer, W. (2001). Assessing teaching presence in a computer conferencing context. Journal of Asynchronous Learning Networks, 5(2), 1-17.

Garrison, D. R. (2016). Thinking collaboratively. Routledge.
Garrison, D. R. (2017). E-learning in the 21st century: A Community of Inquiry framework for research and practice. Routledge.
Garrison, D. R., Anderson, T., & Archer, W. (2000). Critical inquiry in a text-based environment: Computer conferencing in higher education. The Internet and Higher Education, 2(2), 87-105.
Halverson, L. R., Graham, C. R., Spring, K.J., Drysdale, J. S., & Henrie, C. R. (2014). A thematic analysis of the most highly cited scholarship in the first decade of blended learning research. The Internet and Higher Education, 20 (1), 20-34.

Creating an Engaged Classroom Environment through Peer-Assessment Practices

Brandi Quesenberry, Dorothy Conner, Claire Boor, Laura Purcell, Susan Stinson, Cemone Paul, Kacy McAllister, Virginia Tech

This session offers instructor methods to better understand common hurdles in peer review, in addition to exploring peer-assessment practices like using the video platform FlipGrid, which enables students to take an oral approach to peer-review, an alternative to the traditional line-by-line edit that have been the hallmarks of writing classes. Peer reviews can be used with various assignments, allowing students to pinpoint, share, and comment on both their own and other's identity and diversity markers, and providing students with in-class exchanges they might otherwise miss. Session activities will encourage participants to brainstorm application of these practices in their courses.

Peer review is not only effective in writing courses but also across disciplines. In fact, if introduced to a class as a way to learn more about their peers as people first and as editors or as content to be critiqued second, peer reviews can be useful ways for students to have meaningful intercultural exchanges in small classes or large lectures alike.

Undergraduate students often resist the peer review process. This happens for several reasons: students are reluctant to give feedback that might be perceived as judgmental; they do not feel comfortable sharing their own work; they expect their instructor to provide all substantial feedback; and they tend to be unmotivated by low-stakes participation activities (Stepanyan, 2009). Students may not trust their peers to give useful feedback, and may not trust themselves if they feel they are not strong writers or presenters. In virtual classes, students may not feel connected to their classmates enough to give thoughtful feedback. Students in virtual classrooms can sometimes lack a sense of "social presence," or the feeling that others are actively involved in the course (Dixson, 2010). Peer review can help make virtual learners feel more relatable and therefore increase perceptions of "realness" in the asynchronous class.

Students are often uncomfortable engaging with peer-review activities, and are understandably hesitant to critique or be criticized. The work of King, Perez, & Shim (2013) suggests students need to feel safe and "willingly participate in intercultural experiences" for those experiences to be rewarding and effective and that for the most authentic intercultural outcomes, there were "five approaches that students frequently used, namely, listen and observe, compare and contrast ideas, engage in personal reflection, explore personal identity as it relates to intercultural understanding, and empathize with others" (p. 76).

Connection and building a class community is a critical step in encouraging a successful peer-review process. When students can share their own stories and listen to peers, it encourages them to want to get to know, and ultimately help, their classmates. Fostering thoughtful engagement between students can help broaden their empathy stores, and in this way, instructors can develop a peer review process that is affirming and positive. These exchanges can happen in person or online using several platforms such as FlipGrid.

The task of incorporating peer assessment in the classroom can seem daunting, but our panel proposes several strategies to encourage accessible and relevant peer review. We first develop and establish a respectful and engaging classroom community through open sharing of identities by acknowledging, respecting and empathizing with the diverse perspectives of students. We use activities to train students to give both helpful and tactful feedback, and provide clear guidelines for peer review activities by using specific peer feedback forms, which has been shown to be an effective approach to increase feedback quality (Gielen & De Wever, 2015). We also offer strategies for adapting in-person peer review activities for virtual environments.

Dixson, M. (June 2010). Creating effective student engagement in online courses: What do students find engaging? Journal of the Scholarship of Teaching and Learning, 10(2), pp. 1-13.

Gielen, M., & De Wever, B. (2015). Structuring the peer assessment process: a multilevel approach for the impact on product improvement and peer feedback quality. Journal of Computer Assisted Learning, 31(5), 435-449. https://doi.org/10.1111/jcal.12096

King, P.M., Perez, R.J., & Shim, W-j. (2013). How college students experience intercultural learning: Key features and Approaches. Journal of Diversity in Higher Education, 6(2),

69 - 83. https://doi.apa.org/doiLanding?doi=10.1037%2Fa0033243
Stepanyan, K., et al. (2009). Student engagement with peer assessment: A review of pedagogical design and technologies. Spaniol M., Li Q., Klamma R., Lau R.W.H. (eds). Advances in Web-Based Learning: International Conference on Web-Based Learning (ICWL) 2009, 367-375. https://link.springer.com/chapter/10.1007/978-3-642-03426-8_44

Creating Virtual Escape Rooms to Engage Students

Denise Wilkinson, Amber Gruszeczka, Kathy Stolley, Virginia Wesleyan University

Incorporating modified Escape Rooms into the classroom environment has been shown to improve the student learning experience. However, with the limitations that the pandemic has imposed on in-person learning, engaging students in a physical Escape Classroom has become increasingly difficult. In this session, the presenters will share three adaptive approaches in the design of an Escape Room, all using virtual platforms. These include a virtual "Escape Room" test review, a student-led Escape Room course project, and a virtual library orientation. Session participants can expect to engage in a virtual Escape Room activity.

An Escape Room is a theme-based game, played live by a team, that incorporates clues, puzzles, challenges, and props to reach a goal in a limited amount of time. The concept of an Escape Room originated in 2007 in Japan, and quickly grew more popular in the rest of Asia, then Europe, Canada, and the USA (Nicholson, 2015). Within the last five years, Escape Rooms were incorporated in education in various venues. Benefits include experiential learning requiring teamwork, communication, collaboration, creativity, critical thinking and other transferable skills, all practiced while students also master the understanding of course content (Stone, 2016). As an example, an "Escape Classroom" activity can be created as an alternative to a test or culminating final project.

With the challenges that the pandemic has created, engaging students in an in-person Escape Classroom has been less than feasible. An adaptive approach has been to design Escape Rooms for students using a virtual platform. Scenarios may be developed using various learning platforms and may include such learning objects as Google forms, online videos, and/or Google Slides (Ursinus College Instructional Technology, 2020). Virtual Escape Rooms are especially helpful when lessons require real-world simulations. For example, a virtual Escape Room created for nursing students was found to be "an effective pedagogical approach to enhance...students' knowledge and confidence" in the course material (Vestal et al., 2021).

In this session, presenters will demonstrate several ways that a virtual Escape Room might be incorporated into a course or other learning environments to enhance the learning experience for students. First, presenters will discuss the basics of creating a Virtual Escape Room as a test review, to include finding and creating: an engaging theme, a plan of action, a set of clues, digital learning platforms, and strategies to incorporate test review questions into an "Escape" game. Second, session participants will learn effective ways to reinforce course knowledge by integrating the course topics into assignments in which students actively create a virtual Escape Room, followed by both a written and oral reflection as well as post-activity exercises that reinforce the connection of students' experience with the concepts learned in the course. Third, presenters will share ways a virtual Escape Room can be designed to explore campus resources outside the classroom, such as the library.

Presenters will share anonymous student feedback evaluating these activities. Session participants can expect to engage in a virtual Escape Room to gain a clearer understanding of usefulness as a pedagogical tool.

Nicholson, S. (2015). Peeking Behind the Locked door: A Survey of Escape Room Facilities. White paper available online. Retrieved August 24, 2019 from http://scottnicholson.com/pubs/erfacwhite.pdf.

Stone, Zara. "The Rise of Educational Escape Rooms." The Atlantic. Retrieved October 10, 2018 from https://www.theatlantic.com/education/archive/2016/07/the-rise-of-educational-escape-rooms/493316/

Ursinus College Instructional Technology. (2020, May 25). Teaching Information Literacy and Digital Literacy Through Escape Rooms [Video]. YouTube. https://youtu.be/r_oY1eT4laU

Vestal, M. E., Matthias, A. D., & Thompson, C. E. (2021). Engaging students with patient safety in an online escape room. Journal of Nursing Education, 60(8), 466-469. doi:http://dx.doi.org/10.3928/01484834-20210722-10

Critical Disciplinary Literary within Literature Survey Courses

Josh Howell, Olivia Buzzacco, Sarah Brown, College of the Albemarle

This practice session will explore how Critical Disciplinary Literacy (CDL) can be embedded in a literature survey course. This session will explore theoretical frameworks of critical disciplinary literary, literature canons, and critical lenses. This session will also work with faculty teaching English courses to develop their own strategies to incorporate CDL into their existing course models. This session will provide time for faculty members to not only share their own strategies, but to develop new ones.

Learning Outcomes:

- To identify the theoretical framework of CDL.
- To share best practices of CDL within literature survey courses.
- To identify strategies of how to incorporate CDL into existing literature survey courses.

Outline:

- Introduction of Presenters (5 Minutes)
- Discussion of CDL Theories, Literature Canons, and Critical Lenses (10 Minutes)
- Discussion of Best Practices incorporating CDL into existing Literature Courses (10 minutes)
- Group Brainstorm of current CDL models in existing Literature Courses (5 Minutes)
- Small Group pair and share to build/remodel CDL into existing Literature Courses (10 Minutes)
- Debrief of Small Groups (10 minutes)

Program Content:

There is little guidance as to how to properly instruct a literature survey course outside of what ivy league professors encourage. By incorporating CDL into a literature survey course, students are exposed to real world comparison between literature themes and the modern world. Additionally, this strategy meets students where they stand to elevate their own analyses through curating, weaving, and scaffolding. This strategy encourages students to question the traditional literary canon, which provides ownership for both student and faculty member. Finally, students identify critical lenses to deconstruct texts based on gender, race, sexuality, ability, etc.

As college literature courses are designed for both adult and adolescent learners, framing these courses to align with student experiences is essential for retention of material. While literature canons are typically white male, remodeling these courses away from the ivy league models allow for more voices from women, persons of color, LGBTQ+ populations, and those with disabilities. Finally, by investigating current critical lenses, and layering these lenses over texts, we find literature courses to be analyzed more in a kaleidoscope fashion, than a one size fits all. After reviewing theoretical frameworks of CDL, and sharing best practices, this session will work with faculty teaching English courses to incorporate their own strategies that break away from traditional literature analyses.

Dyches, J. (2018). Critical Canon Pedagogy: Applying Disciplinary Inquiry to Cultivate Canonical Critical Consciousness. Harvard Educational Review, 88(4), 538-564,607. http://proxy.lib.odu.edu/login?url=https://www-proquest-com.proxy.lib.odu.edu/scholarly-journals/critical-canon-pedagogy-applying-disciplinary/docview/2237540554/se-2?accountid=12967

Moje, E. B. (2015). Doing and Teaching Disciplinary Literacy with Adolescent Learners: A Social and Cultural Enterprise. Harvard Educational Review, 85(2), 254-278,301. http://proxy.lib.odu.edu/login?url=https://www-proquest-com.proxy.lib.odu.edu/scholarly-journals/doing-teaching-disciplinary-literacy-with/docview/1691427618/se-2?accountid=12967

Reynolds, T., Rush, L. S., Lampi, J. P., & Holschuh, J. P. (2021). Moving Beyond Interpretive Monism: A Disciplinary Heuristic to Bridge Literary Theory and Literacy Theory. Harvard Educational Review, 91(3), 382-401,423-425. http://proxy.lib.odu.edu/login?url=https://www-proquest-com.proxy.lib.odu.edu/scholarly-journals/moving-beyond-interpretive-monism-disciplinary/docview/2575543367/se-2?accountid=12967 **Critical**

Cross-Institutional Interdisciplinary Initiative to Reduce Equity Gaps Through Transparent Design

Breana Bayraktar, Northern Virginia Community College
Heather Keith, Radford University
Kim Case, Virginia Commonwealth University
Jodi Fisler, State Council for Higher Education

This presentation shares the creation and outcomes of a cross-institutional state-wide educational development initiative and applied research project. The overarching goal of the initiative was to engage faculty in the work of addressing racial disparities in student success. Impacts included strengthened cross-institutional collaboration, development of a model for institution-wide change, and support for individual instructors' efforts to increase inclusivity and address inequities in their courses. Presenters will engage participants in applying lessons learned to their specific contexts, with an eye towards impacting institution-level as well as individual-level practice.

This presentation shares the creation of a large, cross-institutional, public and private, state-wide educational development initiative and applied research project that focuses on introducing instructors to transparent assignment design principles known to close equity gaps. The overarching goal of the initiative is to engage faculty in the work of addressing racial disparities in student success. Instructors were invited to consider how redesigning course assignments could address equity gaps, positively impact students' academic confidence and sense of belonging, and lead to higher-quality student work. Having a centrally organized system connected participants not only to each other (for local impacts) but to the state-wide initiative (for broader impacts). The workshop and faculty learning communities was phase 1 of the initiative, research on changes to teaching practices is phase 2, and impacts on student outcomes in phase 3.

Over 350 participants, first-year instructors to tenured professors, in full- and part-time teaching roles, were involved in phase 1 (online workshop and 4 cross-institutional FLCs). FLCS met at least three times, offering faculty space to collaborate on redesigning assignments and receiving feedback from peers and facilitators. While the impact of the initiative is being examined via research studies looking at student artifacts and persistence/graduation rates, faculty interview and survey data indicate faculty clearly benefited from cross-institutional collaboration and felt better prepared to offer transparent assignments. Almost all (94%) agree/strongly agree the workshop was "relevant to my professional experience" and they: "[P]lan to apply the workshop content to my teaching practice." One of the most cited outcomes is the opportunity to collaborate cross-institutionally. In interviews, instructors articulated the powerful connection between the initiative and addressing racial disparities, stating the workshop and FLCs were the "most relevant and effective workshops attended" and are "directly related to my efforts to increase inclusivity and address inequities in my introductory-level large-enrollment courses." Participants in the session will be encouraged to consider how a coherent and supported collection of development activities can lead to individual- and institution-level change.

The cross-institutional collaboration discussed in the presentation will be used as a model, but presenters will guide participants in considering application beyond the specific context of the presentation topic. Particular focus will be on considering how collaboration supports individual instructors' efforts to increase inclusivity and address inequities in their courses. Presenters will engage participants in applying lessons learned to their specific contexts, with an eye towards impacting institution-level as well as individual-level practice. For participants working in educational development or other leadership positions, we will invite discussion on how cross-institutional collaboration can be cultivated and facilitated.

Beach, A. L., Sorcinelli, M. D., Austin, A. E., & Rivard, J. K. (2016). Faculty development in the age of evidence: Current practices, future imperatives. Stylus.

Condon, W., Iverson, E. R., Manduca, C. A., Rutz, C., & Willett, G. (2016). Faculty developmentand student learning: Assessing the connections. Indiana University Press.

Winkelmes, M.-A., Boye, A., & Tapp, S. (Eds.). (2019). Transparent Design in Higher Education Teaching and Leadership. Stylus Publishing.

Cultivating an Inclusive Learning Environment

Kerry Vandergrift, Viki Neurauter, Radford University

> Day 1 of the new semester. You walk into your classroom, take a deep breath and:
>
> A. Read the syllabus out loud. Make self-deprecating joke about using technology. Ask if there are any questions? Dismiss everyone early.
>
> B. Welcome everyone to your inclusive classroom, where you acknowledge and value differences. Learn how to pronounce each student's name and invite correction. Establish collaborative classroom engagement rules. Immediately engage students in the course material which utilizes an inclusive approach. (Oh, and of course, share your syllabus.)
>
> If you prefer "B," join us for our session.

"Diversity, equity, and inclusion" or "DEI" has been a trio of words tossed around for several years now and nearly every organization seems to have a group or committee designed to address these areas-- including that of higher education institutions. While commendable, information as to what these efforts look like within a higher education classroom context are rarely communicated in a digestible manner to those who might use said recommendations.

This practice session will offer its attendees information about how to launch and engage college students in a course which actively utilizes inclusive strategies. In this session the presenters encourage attendees to expand their understanding of DEI efforts to increase student engagement, learning opportunities, and sense of belonging.

By the end of the presentation, attendees will be able to:

- Identify two first day welcoming strategies.
- Verbalize a strategy to engage students in classroom conversations.
- Describe three strategies to use for more inclusive assignments.
- List three strategies to use for more inclusive lectures.

Anti-racist pedagogy guide: https://libguides.usc.edu/antiracistpedagogy
Checklist for designing an inclusive syllabus: https://www.mtholyoke.edu/sites/default/files/TLI-TEFD-Checklist-Inclusive-Syllabus-20180613.pdf
Diversity, equity and inclusion from the USC School of Social Work. https://dworakpeck.usc.edu/about-us/diversity-equity-and-inclusion
Teaching for change: https://www.teachingforchange.org/
The diversity style guide LGBTQ glossary: http://www.diversitystyleguide.com/topic-glossaries/lgbtq-glossary-2/
The pluralism project: https://pluralism.org/
Universal Design for Learning guidelines: https://udlguidelines.cast.org/?utm_source=castsite&lutm_medium=web&utm_campaign=none&utm_content=aboutudl

Designing Escape Rooms for Higher Education

Shawn M. Bielicki, Alexandra Barnett, Liberty University

Educational Escape Rooms encourage student teams to find clues, solve puzzles, and accomplish tasks to unravel a problem in a limited amount of time. In this hands-on and interactive session, participants will learn how escape rooms can be utilized in higher education. Attendees will be taught to create escape room scripts, clues, and plan for props/puzzles. Participants will complete a live escape room in groups/teams. Caution: audience participation will be required.

Goals and Objectives for the Session

Upon completion, participants will be able to:

1. Define Educational Escape Rooms and recognize their value in higher education.
2. Write Educational Escape Room scripts for subjects of their choice.
3. Create supply lists, including plans for props and puzzles.

Brief Literature Review

Best practices literature is often cited for student engagement, gamification, and/or the use of visuals or props to spur critical thinking. How frequently these strategies are implemented in higher education remains a bit elusive. This notion is especially true in use of escape rooms in the classroom. Escape rooms have emerged as a valid pedagogical tool (Berthod et al., 2019; Brown et al., 2019; Seemiller, 2016). A meta-analysis of more than 60 studies confirmed that they increase collaboration, engagement, and learning (Fotaris & Mastoras, 2019).

Description of the Practice to Be Modeled

This interactive session requires audience participation. This workshop introduces participants to the concept of escape rooms by briefly defining the elements that constitute an escape room. Attendees will be placed in teams and participate in a live escape room on site- complete with a storyline, props, puzzles, and purpose. Following this activity, the facilitators will define Educational Escape Rooms and their implications for use in the higher education classroom. Next, participants will be guided through the process of writing their own educational escape room outline for a script, as well as the creation, selection, and curation of puzzles and props. Attendees will share their finalized ideas with other participants. The session will close with an open forum for questions and sharing.

Participants

Both new and seasoned higher education faculty will benefit from attending this workshop as it expands the faculty toolbox to include Educational Escape Room creation and use. Higher education administrators, especially those concerned with encouraging skills like problem-solving and critical thinking in students may also wish to attend.

Berthod, F., Bouchoud, L., Grossrieder, F., Falaschi, L., Senhaji, S., & Bonnabry, P. (2019). Learning good manufacturing practices in an escape room: Validation of a new pedagogical tool. Journal of Oncology Pharmacy Practice, 26(4), 853-860. https://doi.org/10.1177/1078155219875504

Brown, N., Darby, W., & Coronel, H. (2019). An escape room as a simulation teaching strategy. Clinical Simulation in Nursing, 30, 1-6. https://doi.org/10.1016/j.ecns.2019.02.002

Fotaris, P., & Mastoras, T. (2019). Escape Rooms for Learning: A Systematic Review.

Seemiller, C. (2016). Assessing student leadership competency development. New Directions for Student Leadership, 2016(151), 51-66. https://doi.org/10.1002/yd.20200

Developing Systems Thinkers: Strategies for Effective Instructional Design

Hannah Scherer, Carolyn McGraw, Matthew Norris, Dickson Otieno, Kasey Owen, Camilo Alfonso, Virginia Tech

Our ability to engage in complex problem solving is limited by the mental models we hold. Systems thinking as a set of "habits of mind" can lead to more accurate mental models of social and socio-ecological systems, illuminating system characteristics such as elements, interconnections, perspectives, and patterns of behavior over time. How do we as educators plan for supporting systems thinking? Participants will be supported in their ability to design learning experiences that center a systems thinking approach through examples and facilitated small-group discussion. Multiple disciplinary contexts will be addressed, including engineering, education, biology, evaluation, and community development.

Teaching in higher education contexts can support student engagement in solving complex problems systems that cross disciplinary boundaries and take into account multiple perspectives (e.g. Teasdale et al., 2018; Gosselin et al., 2019). Systems thinking as a foundational set of "habits of mind" can improve student learning in these contexts when explicitly taught using real-world systems and scaffolded through intentional learning experiences (Gilbert et al., 2017; Gilbert et al., 2019). In her seminal work Thinking in Systems, Donella Meadows (2008) defines a system as "a set of elements that is coherently organized and interconnected in a pattern or structure that produces a characteristic set of behaviors" (p. 188) and systems thinking leads to better understanding of such systems. Even within a single disciplinary context, however, the way in which systems thinking is defined in teaching and learning can vary widely (Scherer et al., 2017). Furthermore, students bring their own mental models and worldviews to the learning experience and these are shaped by their culturally- and socially- mediated experiences of the world (Vygotsky, 1978; Lave, 1988). For example, the contemporary understanding of nature of the relationship between humans and the natural world differs between Western and indigenous North American peoples, leading to fundamental differences in how interconnections within a socio-ecological system are described (Pierotti & Wildcat, 2000; Bang & Marin, 2015). Despite its promise, attending to these issues presents a difficult challenge for instructors seeking to support systems thinking in their courses. The myriad of potential instructional design solutions leads to a diversity of approaches, even within a single discipline (Scherer et al., 2017).

The primary purpose of the session is to encourage and equip faculty to enhance their teaching of systems thinking in undergraduate and graduate courses. From a teaching and learning perspective, a common systems thinking goal is to help students develop more accurate mental models of complex systems, supporting them in identifying and describing system characteristics such as elements, interconnections, perspectives, and patterns of behavior over time. This session will be relevant to instructors in a wide range of settings, particularly those that include (or have the potential to include) interdisciplinary topics of societal relevance. After engaging in this session, participants will be able to (1) describe approaches to instructional design for systems thinking and (2) identify strategies for supporting systems thinking effectively in their own instructional context.

This practice session builds on a previous CHEP Practice Session (Scherer & Seman-Varner, 2016) and subsequent development of a graduate level course entitled Systems Thinking Pedagogy and Praxis by Hannah Scherer. Students from the Fall 2021 offering of this course are co-presenters of this session and will share examples of instructional designs that support systems thinking in their own disciplinary contexts, including engineering, education, biology, evaluation, and community development. These examples will be used to anchor small group discussions about how participants can support systems thinking in their own teaching.

Bang, M., & Marin, A. (2015). Nature-culture constructs in science learning: Human/non-human agency and intentionality. Journal of research in science teaching, 52(4), 530-544. https://doi.org/10.1002/tea.21204

Gilbert, L. A., Gross, D. S., & Kreutz, K. J. (2019). Developing undergraduate students' systems thinking skills with an InTeGrate module. Journal of Geoscience Education, 67(1), 34-49. https://doi.org/10.1080/10899995.2018.1529469

Gilbert, L. A., Iverson, E., Kastens, K., Awad, A., McCauley, E. Q., Caulkins, J., Steer, D. N., Czajka, C. D., Mcconnell, D. A., & Manduca, C. A. (2017). Explicit focus on systems thinking in InTeGrate materials yields improved student performance. Geological Society of America Abstracts with Programs, 49(6).

https://doi.org/10.1130/abs/2017AM-304783

Gosselin, D. C., Egger, A. E., & Taber, J. J. (Eds.). (2019). Interdisciplinary Teaching About Earth and the Environment for a Sustainable Future. AESS Interdisciplinary Environmental Studies and Sciences Series. doi:10.1007/978-3-030-03273-9

Lave, J. (1988). Cognition in practice: Mind, mathematics, and culture in everyday life. Cambridge University Press.

Meadows, D. H. (2008). Thinking in Systems: A primer (D. Wright Ed.). White River Junction, VT: Chelsea Green Publishing.

Pierotti, R., & Wildcat, D. (2000). Traditional Ecological Knowledge: The Third Alternative (Commentary). Ecological Applications, 10(5), 1333-1340.

Scherer, H. H., Holder, L., & Herbert, B. (2017). Student Learning of Complex Earth Systems: Conceptual Frameworks of Earth Systems and Instructional Design. Journal of Geoscience Education, 65(4), 473-489. https://doi.org/10.5408/16-208.1

Scherer, H., & Seman-Varner, R. (2016). Strategies for Developing Systems Thinking 8th Annual Conference on Higher Education Pedagogy, Blacksburg, VA.

Teasdale, Rachel; Scherer, Hannah; Holder, Lauren; Boger, Rebecca; and Forbes, Cory (2018). "Research on Teaching about Earth in the Context of Societal Problems". In St. John, K (Ed.) (2018). Community Framework for Geoscience Education Research. National Association of Geoscience Teachers. Retrieved from DOI https://doi.org/10.25885/ger_framework/5

Vygotsky, L. S. (1978). Mind in society: The development of higher psychological processes. Harvard University Press.

Digital Badging: A new framework for higher education instruction

Jeffrey Robert, Marc Zaldivar, Virginia Tech

Digital badges are virtual representations of accomplishments and skills. Research indicates that digital badges may enhance student motivation, incentivize learning, and capture non-traditional learning performance.

After this interactive practice session, participants will be able to: 1) discuss the educational and professional benefits of a badging framework, 2) identify the best practices for integrating digital badging in higher education, and 3) design a higher education course with a digital badging framework. In addition, this session will provide a guide for participants to construct their own digital badges in Canvas.

Countless articles within the higher education pedagogy literature focus on motiving students and fostering a positive education environment. Some of these articles advocate for a technological approach for nurture student development (Bloom & Doss, 2021). Digital badges represent a new form of classroom technology that may achieve this goal. Digital badging has been associated with enhancing student motivation (Abramovich, Schunn, & Higashi, 2013), incentivize learning (Gamrat, Zimmerman, Dudek, & Peck, 2014), and capturing learning performance not generally recognized through traditional academic assessments (Zhou, Chen, Fan, & Ji, 2019).

Specifically, digital badges are defined as a virtual representation of an accomplishment or skill. While the use of physical badges to depict accomplishments and skills have been around for generations, the dissemination of digital badges for educational purposes first originated in 2010 (Gibson, Ostashewski, Flintoff, Grant, & Knight, 2015). These displays of micro-credentialism emerged from digital game communities and social media culture.

There is evidence that undergraduate students may benefit from the integration of digital badging in higher education courses. In addition to learning and achievement gains in the classroom, students may display their earned digital badges on LinkedIn to signal these developed skills to future employers.

After this practice session, participants will be able to: 1) discuss the educational and professional benefits of a badging framework, 2) identify the best practices for integrating digital badging in higher education, and 3) design a higher education course with a badging framework. In addition, this session will provide a guide for participants to construct their own digital badges in Canvas.

This session will be interactive and will engage participants. Digital badging requires a mental re-framing of a course from a temporal schedule to a skills-based schedule. The facilitators will provide multiple handouts to help session participants think through the restructuring of their own course. The facilitators will show examples of a traditional course and its subsequent conversion to a digital badge framework. Moreover, session participants will create a list of mini-badges for their course which may culminate in an overall skills-based course badge.

Abramovich, S., Schunn, C., & Higashi, R. M. (2013). Are badges useful in education? It depends upon the type of badge and expertise of learner. Educational Technology Research and Development, 61(2), 217-232.

Bloom, L. A., & Doss, K. (2021). Using technology to foster creative and critical thinking in the classroom. In Research Anthology on Developing Critical Thinking Skills in Students (pp. 553-567). IGI Global.

Gamrat, C., Zimmerman, H. T., Dudek, J., & Peck, K. (2014). Personalized workplace learning: An exploratory study on digital badging within a teacher professional development program. British journal of educational technology, 45(6), 1136-1148.

Gibson, D., Ostashewski, N., Flintoff, K., Grant, S., & Knight, E. (2015). Digital badges in education. Education and Information Technologies, 20(2), 403-410.

Zhou, L., Chen, L., Fan, Q., & Ji, Y. (2019). Students' perception of using digital badges in blended learning classrooms. Sustainability, 11(7), 2151.

Doing Sociology through Collaborative Assessments

Heidi Williams, Virginia Tech

My teaching philosophy is to deconstruct social narratives and promote collaborative learning. To achieve this, I rely on two pedagogical practices--facilitating an interactive, discussion-based classroom and collaborative assessments. I design all assessments as partnered exercises--a decision that transformed my teaching. I realized that collaborative work in sociology is "doing" sociology. For this practice session, I justify collaborative assessments and encourage others to adopt this technique. Participants will learn how I teach a concept, allow them to engage in collaborative assessments, report on their results, and reflect on the process of engaging in mutual relationships.

My teaching philosophy is to deconstruct social narratives and promote collaborative learning. To achieve this, I rely on two pedagogical practices--facilitating an interactive, discussion-based classroom and collaborative assessments. For this practice session, I propose to justify collaborative assessments and encourage others to adopt this technique.

Why collaborative assessments? During my first semester teaching, a struggling student visited my office for help. She was clearly reading the materials, as she actively engaged in class discussions; however, she was failing the multiple-choice exams. She excelled on an ethnomethodological study--a social experiment where student groups break a social norm. She shopped from another patron's grocery cart, exclaiming, "oh, I need ketchup! Thank you for reminding me." As she walked away with the ketchup, her group mates recorded the patron's astonishment. I asked her why she did so well on this assignment. She told me the assignment did not feel like learning; rather, it was fun and allowed her to apply sociological concepts to the real world. I committed to design the upcoming exam as a partnered exercise--a decision that transformed my teaching. I realized that collaborative work in sociology is "doing" sociology.

This pedagogical practice means students actively engage the course material and each other--which continues, rather than simply judges, the learning process. Collaborative work sparks discussion that includes "mutual recognition and acceptance of each other's statements" (Frykedal & Chiriac 2018: 189). Collaborative assessments necessitate partners' shared diligence to construct a response, particularly when there are temporal restrictions. Students are allotted one class period to complete their task; thus, student success relies on individual accountability (Frykedal & Chiriac 2018).

Professors who employ collaborative assessments should learn to "see themselves as change agents who help students better themselves by developing independence through interdependence" (Davidson & Major 2014: 20-21). In my classroom, students are first interdependent on me to gain an understanding of complex concepts and social patterns; and, subsequently, interdependent on each other to critically apply concepts to a scenario, popular culture, or other media. Through this process, knowledge becomes a social product, where the professor and students work together to create and interpret meaning (Davidson & Major 2014). Indeed, Smith and MacGregor (1992) note that collaborative assessments "center on students' exploration or application of the course material, not simply the teacher's presentation or explication of it" (11). I strongly believe that students learn from my interpretation of sociological knowledge, but it is not until they explore these concepts with each other that true understanding emerges.

To demonstrate how this practice works, I plan to:

1. Introduce the concepts "social construction" and "social consciousness”
2. Play Henson Cargill's "Skip a Rope"
3. Administer a collaborative assessment
4. Facilitate a discussion on the assessment process

I aim to use this session to demonstrate how I teach a concept (10 minutes), allow participants to engage in collaborative assessments (15 minutes), report on results (5 minutes), and reflect on the process of engaging in mutual relationships (15 minutes).

Davidson, Neil and Claire Howell Major. 2014. "Boundary crossings: Cooperative learning, collaborative learning, and problem-based learning. Journal on Excellence in College Teaching 25(3&4): 7-55.
Forslund Frykedal, Karin and Eva Hammar Chiriac. 2018. "Student Collaboration in Group Work: Inclusion as Participation." International Journal of Disability, Development and Education 65 (2): 183-198.
Smith, Barbara L. and Jean T. MacGregor. 1992. "What is collaborative learning?" Pp. 10-36 in Collaborative learning: A sourcebook for higher education, edited by A. Goodsell, M. Maher, & V. Tinto. University Park, PA: National Center on Post-Secondary Teaching, Learning, and Assessment.

Don't Get Trapped Inside: Time to Think Outside the Box

Erin Berman, Arizona State University
Jason Tyler, MyOpticDays

You have been handed your course- now what? Many institutions use a "course in a box" model as a way to streamline, but this does not have to mean that personalization and authenticity are dead. The Community of Inquiry model (Garrison et al., 2000) provides a framework for creating instructor to learner connections and this session will engage participants in discussion to highlight best practices to create a personalized experience amid streamlined content.

Research to date has focused on applying the Community of Inquiry model in a way that promotes and supports learner engagement (Kuh et al., 2015; Lenert & Janes, 2017). However, little attention has been paid to how this engagement can foster a positive experience for the educator (Curtis et al., 2020). This presentation will use the Community of Inquiry model as a framework for creating an inclusive environment that promotes effective teaching and learning strategies, especially useful for those who teach from a "course in a box" model.

As the learning environments continue to diversify it becomes necessary to educate the transgenerational, technologically aware to become technologically savvy, technologically creative, and technologically productive. Whether classes are conducted in person or completely online, the online space exists as a component to each course and by utilizing it effectively, educators have a chance to redefine community and presence in an authentic way (Hentges, 2016).

Darby and Lang (2019) suggest that one way for instructors to enhance teaching presence is to help learners see them as real people. This can be accomplished, despite a "course in a box" design and using student satisfaction research, which points to the value of presence in a student experience (Dzubinski, 2014), through such delivery tools as weekly announcements and assignment overview videos (Batova, 2020).

While many studies have pointed to the importance of getting to know learners, less focus has been placed on the opportunities for learners to get to know their instructor, but the Community of Inquiry module has helped to underscore that this is no less relevant when considering course design (Darby & Lang, 2019). But how much is too much and where is it most appropriate to present this type of personalized content? A primary goal of this discussion is to provide research supported strategies, and encourage open dialogue concerning best practices, which can guide instructors to design a course that reflects their personality, while also creating an inclusive environment, where learning can take place.

Using a gamified approach, participants will be challenged to consider the value of using a style guide, while being mindful of including teacher, social, and cognitive presence as a way to personalize course material and examples, personalize interactions with students, and encourage dialogue that allows learners to make sense of a problem.

Session Questions:

- What elements do you use that take the most time to create and what is the value to you to creating them?
- What makes course content engaging for you? How might this compare to your learner?
- Epic Fails: What do you wish you could do again and why?

Batova, T. (2020). An Approach for Incorporating Community-Engaged Learning in Intensive Online Classes: Sustainability and Lean User Experience. Technical Communication Quarterly, 1-13. https://doi.org/10.1080/10572252.2020.1860257

Curtis, E., Lunn Brownlee, J., & Spooner-Lane, R. (2020). Teaching perspectives of philosophical inquiry: Changes to secondary teachers' understanding of student learning and pedagogical practices. Thinking Skills and Creativity, 38, 100711-. https://doi.org/10.1016/j.tsc.2020.100711

Darby, F. & Lang, J. (2019). Small Teaching Online: Applying Learning Science in Online Classes. Jossey-Bass.

Dzubinski, L. M. (2014). Teaching presence: Co-creating a multi-national online learning community in an asynchronous classroom. Journal of Asynchronous Learning Networks JALN, 18(2), 97-.

https://doi.org/10.24059/olj.v18i2.412

Garrison, R. D., Anderson, T., & Archer, W. (2000). Critical Inquiry in a text-based environment: Computer conferencing in higher education. The Internet and Higher Education. 2(2-3): 87-105

Hentges, S. (2016). Toward #SocialJustice: Creating Social Media Community in Live and Online Classrooms. Transformations (Wayne, N.J.), 26(2), 230-238. https://doi.org/10.5325/trajincschped.26.2.0230Kuh, G. D., Ewell, P. T., Hutchings, P., Kinzie, J., Ikenberry, S. O., Jankowski, N. A., & Cain, T. R. (2015). Using Evidence of Student Learning to Improve Higher Education. San Francisco: Jossey-Bass.

Lenert, K. A., & Janes, D. P. (2017). The Incorporation of Quality Attributes into Online Course Design in Higher Education. International Journal Of E-Learning & Distance Education, 32(1), 1-14.

Malone, T. W., & Lepper, M. R. (1987). Making learning fun: A taxonomy of intrinsic motivations for learning. In R. E. Snow & M. J. Farr (Eds.), Aptitude, Learning and Instruction III:Conative and affective process analyses (pp. 223-253). Hilsdale, NJ: Erlbaum

Ryan, R. M., & Deci, E. L. (2000). Intrinsic and extrinsic motivations: Classic definitions and new directions. Contemporary educational psychology, 25(1), 54-67.

Smith Jaggars, S., Edgecombe, N., & Stacey, G. W. (2013). Creating an Effective Online Instructor Presence. Distributed by ERIC Clearinghouse.

Effective Teams in Student-Centered Learning

Joyce Easter, Virginia Wesleyan University

Students actively involved in the learning process often show increased knowledge acquisition and skill development than passive students. Student-centered learning in its many forms place students at the core of the process typically with collaboration as a key component. As a team, students actively engage and exchange ideas to connect new learning to prior learning and construct new knowledge through authentic learning. Members of effective teams develop positive interdependence and raise their individual accountability while constructing their own knowledge. This session will explore team composition and utilizing roles as strategies for fostering effective teams while modeling a student-centered environment.

Over the past two decades, a variety of instructional strategies have been promoted to enhance student learning. A significant proportion have included student-centered learning. Several characteristics common to the various student-centered teaching strategies include (1) engaging students in the learning, (2) providing explicit instruction on process skills, (3) providing opportunity for students to reflect on their learning, (4) sharing control over the learning process with students, and (5) fostering collaboration (Weimer).

One example of a student-centered instructional strategy is Process Oriented Guided Inquiry Learning (POGIL) which implements small, self-managed teams of students working on intentionally designed materials to master concepts and to develop key process skills. This approach incorporates the five characteristics of a learner-centered methodology with a structure that is consistent with how people learn. Cognitive sciences research (Bransford, Brown and Cocking) documents that people learn by (1) constructing their own understanding based on prior knowledge, experiences, skills, attitudes, and beliefs; (2) following a learning cycle of exploration, concept formation, and application; (3) connecting and visualizing concepts and multiple representations; (4) discussing and interacting with others; (5) reflecting on progress and assessing performance; and (6) interconnecting conceptual and procedural knowledge in large mental structures.

POGIL utilizes self-managed learning teams, guided-inquiry materials based on the learning cycle, and metacognition (Hanson). In the POGIL classroom the instructor is not the expert conveyor of knowledge, but rather is a facilitator who guides student teams in the process of learning, helping them to develop process skills and conceptual understanding, and to apply this understanding in solving problems. Students working in a team environment learn more, understand more, and remember more when they work together. They are also more likely to acquire essential process skills, such as critical thinking, problem solving, teamwork, and communication. (Johnson, Johnson and Smith). While the benefits of collaborative learning have been researched and well documented, it is also possible for a team to be ineffective resulting in frustration and negative impacts on learning (Oakley). The instructor plays a vital role in providing a framework for effective team interactions and a productive collaborative environment.

In this learner-centered session, participants will engage in POGIL activities to explore strategies that can be used to create more effective teams in your classroom, including the composition of teams and utilizing roles to improve team dynamics.

Bransford, J. D., Brown, A. L., & Cocking, R. R. (Eds.) (2000) How people learn: Brain, mind, experience, and school. Washington, DC: National Academy Press.

Hanson, D. M. (2006). Instructor's guide to process-oriented guided-inquiry learning. Lisle, IL: Pacific Crest.

Johnson, D. W., Johnson, R. T., & Smith, K. A. (1991). Active learning: cooperation in the college classroom. Edina, MN: Interaction.

Oakley, B., Felder, R.M., Brent, R., and Elhajj, I. (2004). Turning student groups into effective teams. Journal of Student Centered Learning, 2(1), 9-34.

Weimer, M. (2002). Learner-centered teaching: Five key changes to practice. San Francisco, CA: Jossey-Bass.

Brown, N.W. (2000). Creating high performance classroom groups. New York, NY: Routledge.

Fink, L. (2004). Beyond Small Groups: Harnessing the Extraordinary Power of Learning Teams. In L. Michaelsen,

Bauman Knight & L. Fink, Team-Based Learning (2nd ed.). Sterling, VA: Stylus Publishing, LLC.

Engage Students from the Start: Implementing Meaningful Warm-up Activities

Hannah Jardine, American University
Marissa Stewart, Catholic University of America

Are you looking for ways to boost student participation and deepen student learning during your class sessions? Use the opening minutes of class to engage students in meaningful learning from the start. Join us to discuss the various reasons why beginning class with a warm-up activity supports student learning. This session will provide you with a variety of ideas for effective warm-up activities and provide you with the space and guidance to start developing a warm-up that you can implement in your course.

Beginning a class session with a warm-up engagement activity is a powerful way to boost student participation and deepen student learning. Warm-up activities support an active learning classroom, which research demonstrates is beneficial for student achievement and sense of belonging (e.g., Freeman et al., 2014). In this session, we will discuss the why and how of implementing meaningful warm-up activities, model a variety of strategies, and help instructors develop ideas that they can apply in their own courses.

Our learning outcomes for this session are that participants will be able to (1) explain the value of beginning class with a warm-up activity, (2) identify various types of warm-up activities and their different purposes, and (3) develop at least one idea for a warm-up activity to implement in their course(s). We will start the session by modeling a warm-up activity that will connect to participants' feelings, in order to demonstrate the value of social-emotional connection at the start of class (Cavanagh, 2016; Eyler, 2018). We will then introduce the session outcomes, and present a second warm-up activity asking participants "Why do you think beginning class with a warm-up is valuable for student learning?" to model activating participants' prior knowledge and pre-conceptions (Ambrose et al., 2010; NRC, 2000).

After hearing from participants, we will present cognitive, social, and logistical reasons why warm-ups are valuable. Cognitive benefits include the role warm-ups can play in activating prior knowledge, sparking curiosity, and making content connections, which are all beneficial for learning (Ambrose et al., 2010; Eyler, 2018; NRC, 2000). We will also talk about how warm-ups can serve as a formative assessment to monitor learning and progress (Yorke, 2003). Social benefits include how warm-ups can connect to students' emotions and lived experiences and support building community in the classroom, which creates a sense of belonging for students (Cavanagh, 2016; Eyler, 2018; Strayhorn, 2019). Finally, we will share how warm-ups can serve logistical purposes such as holding students accountable to completing class pre-work and providing the instructor with time to get situated or handle any administrative tasks at the start of class.

Once we have established the "why" behind warm up activities, we will move into the "how." We will share specific examples of questions and activities as well as tools and formats for both in-person and online classrooms. We will model a think-pair-share by giving participants a brief period of independent work time to reflect on how they could apply some of the suggested ideas to their courses. Then, we will ask participants to talk in small groups before debriefing with the whole group. We will close by summarizing key takeaways. Throughout the session we will model different types of check-in activities that could be implemented at the start of class. Whenever modeling a specific strategy, we will discuss what it is, why we chose it, how we set it up, and how instructors might apply the strategy in their courses.

Ambrose, S. A., Bridges, M. W., DiPietro, M., Lovett, M., & Norman, M. K. (2010). How Learning Works: Seven Research-based Principles for Smart Teaching. San Francisco: Jossey-Bass.

Cavanagh, S. R. (2016). The Spark of Learning: Energizing the College Classroom with the Science of Emotion. West Virginia University Press.

Eyler, J. R. (2018). How Humans Learn: The Science and Stories Behind Effective College Teaching. West Virginia University Press.

Freeman, S., Eddy, S. L., McDonough, M., Smith, M. K., Okoroafor, N., Jordt, H., & Wenderoth, M. P. (2014). Active learning increases student performance in science, engineering, and mathematics. Proceedings of the

National Academy of Sciences, 111(23), 8410-8415.
National Research Council. (2000). How People Learn (Vol. 11). Washington, DC: National Academy Press.
Strayhorn, T. L. (2019). College students' sense of belonging: A key to educational success for all students (2nd ed.). Routledge.
Yorke, M. (2003). Formative assessment in higher education: Moves towards theory and the enhancement of pedagogic practice. Higher education, 45(4), 477-501.

Engaging Experts in Project-Based Learning Courses

Alicia Johnson, Virginia Tech
Miguel Nino, University of North Carolina, Pembroke

Project-Based Learning (PBL) is a student and problem-driven instructional approach built around authentic, meaningful, and sustained projects to facilitate student learning beyond the content knowledge (Helle, et al., 2006; Kokotsaki, et al., 2016, p. 1). PBL encourages teamwork, collaborative communication, project management, and creative problem-solving in diverse environments that often include a variety of stakeholders and subject matter experts (SME) (Grant, 2002; Krajcik & Blumenfeld, 2006). This session discusses the role of the SME in PBL and how faculty and SME's can work together to provide students with experiences that will serve them in their future professional lives.

Using a PBL strategy can impact student learning (Chen & Yang, 2019) as well as enhance creativity, collaboration, communication, and critical thinking skills (Bell, 2010; Lee, et al., 2015; Walters & Sirotiak, 2011). However, these potential benefits do not happen automatically simply because of the chosen methodology. As with all instructional strategies, PBL must be pre-planned with the end goal in mind (Miller, 2018; Wilson, 2021) in order to achieve the best results possible. Planning the entire PBL process is beyond the scope of this session. The focus of this session is planning for successful engagement with an external expert in a PBL course.

Bringing a subject matter expert (SME) into a PBL project can add authenticity to the project. An SME's involvement can serve a specific purpose (e.g. expertise in project management) or they can be part of the overall project (e.g. serving as co-teacher or stakeholder in the final product created.) Having access to an SME can provide opportunities for students to experience giving and receiving feedback (authentic collaborative experiences) (Lombardi, 2007). SME's can facilitate and help clarify the student thinking process (Ritchhart, et al., 2011) and can expose students to interdisciplinary (Lee & Shipe, 2014) and interprofessional (Bridges, et al., 2011) collaborations.

However, an SME's expertise may not include interacting with students in a learning environment.
Just as novice students require a scaffolded approach to working in a PBL learning environment, so will SME's if they have not participated in PBL projects before. Even though the PBL learning environment is considered to be an authentic real-world learning experience, instructors will want to "prepare" their experts for the PBL environment so the experience will be relevant to both the student and the expert (with limited "surprises").

In this session, presenters will share strategies from both a faculty perspective and an SME perspective on how to make the PBL experience relevant and positive for all stakeholders. Based on the existing literature and experience working together for several years on PBL projects (as faculty and SME), presenters will share strategies with attendees on how to successfully include experts in the PBL process in the planning stages. Presenters will engage attendees (both faculty and students) through interactive discussions on their own experiences with PBL and use crowdsourcing to build a collaborative collection of best practice strategies for working successfully with SME's in PBL courses.

Bell, S. (2010) Project-based learning for the 21st century: Skills for the future, The Clearing House, 83(2), 39-43. DOI: 10.1080/00098650903505415.

Bridges, D. R., Davidson, R. A., Odegard, P. S., Maki, I. V., & Tomkowiak, J. (2011). Interprofessional collaboration: three best practice models of interprofessional education. Medical education online, 16. https://doi.org/10.3402/meo.v16i0.6035

Chen, C. & Yang, Y. (2019). Revisiting the effects of project-based learning on students' academic achievement: A meta-analysis investigating moderators, Educational Research Review, 26, 71-81. http//doi.org/10.1016/j.edurev.2018.11.001.

Grant, M. M. (2002). Getting a grip on project-based learning: Theory, cases, and recommendations. Meridian: A Middle School Computer Technology Journal, 5(1), 83.

Helle, L., Tynj屑, P. & Olkinuora, E. (2006). Project-based learning in post-secondary education - Theory, practice and rubber sling shots. Higher Education 51, 287-314. https://doi.org/10.1007/s10734-004-6386-5.

Kokotsaki, D., Menzies, V., & Wiggins, A. (2016). Project-based learning: A review of the literature. Improving Schools, 19(3), 1-23. doi:10.1177/1365480216659733.
Krajcik, J. S., & Blumenfeld, P. C. (2006). Project-based learning (pp. 317-34). na.
Lee, D., Huh, Y. & Reigeluth, C. M. (2015). Collaboration, intragroup conflict, and social skills in project-based learning. Instructional Science, 43, 561-590. https://doi.org/10.1007/s11251-015-9348-7.
Lee, S. J. & Shipe, S. L. (2014). Influences on interdisciplinary collaboration among social work and health sciences students. Advances in Social Work, 15(2), 352-367.
Lombardi, M. M. (2007). Authentic learning for the 21st century: An overview. Educause.
Miller, A. (2018, January 18). Planning for PBL implementation. Edutopia. https://www.edutopia.org/article/planning-pbl-implementation.
Ritchhart, R., Church, M., & Morrison, K. (2011). Making thinking visible: How to promote engagement, understanding, and independence for all learners. Jossey-Bass.
Walters, R. C., & Sirotiak, T. (2011). Assessing the effect of project based learning on leadership abilities and communication skills. In 47th ASC Annual International Conference Proceedings. Associated Schools of Construction.
Wilson, K. (2021) Exploring the challenges and enablers of implementing a STEM project-based learning program in a diverse junior secondary context. International Journal of Science and Math Education 19, 881-897. https://doi.org/10.1007/s10763-020-10103-8

Engaging Students in Critical Thinking with First-Person Writing

Laura Waldrep, North Carolina State University

The goal of this session is to discuss best practices for incorporating first-person writing assignments into the college classroom, focusing particularly on ways to engage students with critical thinking through the use of their personal experiences. First, we will examine how narrative, reflective writing has become more widely accepted in formal, academic texts. Next, attendees will reflect on approaches to including first-person prompts in their courses, for both low-stakes tasks as well as high-stakes assessments. Then, we will share resources and ideas to develop specific practical strategies that can be easily integrated into our course designs.

Many students are taught to avoid any use of first-person in their academic writing because using personal experiences can make them seem overly subjective and weaken their credibility. As a result of conditioning, the idea of using first-person can sometimes feel intimidating for students (and instructors!) at first, but scholarship shows that the use of first-person can ultimately strengthen students' critical thinking skills and allow them to engage in the writing process more effectively. When we demystify academic writing for students and show them that their voices - their opinions, thoughts, and ideas - matter, then we are greatly rewarded by what they are able to accomplish in their coursework. In this conversation session, I want to invite participants to discuss and share their thoughts and experiences with asking students to use first-person in their writing.

In the past couple of years, writing instructors have witnessed monumental shifts in pedagogical approaches to language and literacy. We are acknowledging, more than ever, the world beyond the Ivory Tower and how academia does not, or should not, exist solely in a vacuum. As the world has changed and learning environments have bounced from classrooms to computers and back again, teachers are continuously trying to find the right approach to adjust their classes accordingly. By asking students to put themselves into the writing process through the use of first-person, we invite them more effectively into the academic conversation and allow them to take accountability for their learning.

During the conversation session, I will briefly share my experiences assigning writing projects which explicitly ask students to use first-person to start the discussion of why and how personal experiences have become more widely accepted in formal genres. I will also ask attendees to respond to a short writing prompt which asks them to practice the use of first-person to consider ways in which they approach critical thinking tasks for their students before starting an open conversation among the participants.

Collectively we will work towards a better understanding of how to improve our teaching practices regarding student engagement, critical thinking, and writing perspectives, sharing resources with one another. Our dialogue will include practical advice for one another about implementing various strategies for classroom practices including discussions, writing assignments, assigned texts and/or videos, and more. Additionally, we will address potential pain points that might arise when asking students to use first-person perspectives in their writing and how to navigate those concerns. Throughout the session, the goal will remain focused on collaborative discourse grounded in specific, practical techniques that we can use to enhance students' learning experiences as they engage with our courses.

Session Questions:

1) How can the use of first-person writing enhance student engagement in your classes?
2) Why are critical thinking skills important for students to utilize in your classes?
3) What strategies have you implemented to incorporate first-person writing tasks into your classes?
4) What are concerns that you have about inviting students to use first-person writing in your courses?

Graff, G., & Birkenstein, C. (2021). They Say, I Say: The Moves that Matter in Academic Writing (5th ed.). NY, NY: Norton.

Maddalena, K.M. (2010). "I need you to say 'I'": Why First Person Is Important in College Writing." Writing Spaces: Readings on Writing, 1, 180-190.

Stewart, M. (2020). "Weaving Personal Experience into Academic Writing." Writing Spaces: Readings on Writing,

3, 162-174.

Enhancing assessment self-regulation through student-staff collaboration using the EAT Framework

Stephen Rutherford, Cardiff University

How can we better use assessment as a tool to enhance our students' learning? This workshop introduces the 'EAT Framework' (Equity, Agency and Transparency in Assessment); an evidence-informed tool for engaging students and staff in partnership to improve assessment and feedback approaches, and development of self-regulated learning. EAT in considering Assessment Literacy, Assessment Feedback and Assessment Design in an integrated way, provides a tool to audit effectiveness in these areas and guide improvements. The workshop introduces EAT, and participants will work together to discuss how EAT can help address any challenges you may have with enhancing the quality of assessment.

How can we better-use assessment as a tool to enhance our students' learning?

Independent learning is a cornerstone of Higher Education (Daily & Landis, 2014). To enhance their performance, students need to have the self-regulatory skills to evaluate their progress and identify how and where they need to improve (Zimmerman, 1990). Effective assessment is instrumental in supporting this development of self-regulatory skills (Evans, 2013; Nicol & McFarlane-Dick, 2006), so that assessment is part of the learning experience, and not simply an audit of understanding. For assessment and feedback, to be effective, the assessment needs to be learner-focused and equally accessible to all learners, who need to "co-own their programmes with lecturers, and see themselves as active contributors to the assessment feedback process, rather than seeing assessment as something that is done to them" (Evans, 2016/2020). If students are to have a better understanding of assessment and be able to accurately judge the quality of their work for themselves, they need to be actively involved in the design and development of assessment.

The EAT (Equity, Agency, Transparency) integrated assessment framework (Evans, 2016/2020) developed from a synthesis of over 50,000 studies, aims to support the development of students' self-regulatory capacity through actively engaging students in assessment. EAT is underpinned by an integrated theoretical framework, and extensive use in practice. EAT focuses on 3 key themes, each with 4 dimensions:

1) Assessment Literacy dimensions attend to students' and teachers' understandings of the aims and purpose of assessments, and what quality looks like.
2) Assessment Feedback dimensions highlight ways of supporting student understanding through the different ways in which they can engage with feedback.
3) Assessment Design dimensions help students and staff think about how to integrate meaningful assessment throughout the curriculum.

The framework brings together research on approaches to learning, self-regulation, and agentic engagement in exploring how assessment can be designed to enable students' maximum engagement with it. Underpinned by a critical pedagogy, issues of equity, access and transparency are central to the model.

This workshop, led by a partner of the 'EAT-Erasmus' project (a cross-European, Erasmus+ funded, initiative between institutions in 5 countries), introduces colleagues to the EAT framework and how to use it to enhance assessment and feedback practices. It will involve sharing of examples of implementing the framework, and peer-to-peer discussion and active planning of how to use EAT to address a problem aspect of an assessment for each workshop participant. Workshop participants are encouraged to bring along a 'problem' or 'challenge' with an assessment to discuss (this could be at the level of an individual assessment, the assessment for a course or program, or an institutional level issue).

Participants will experience how EAT can support the development of assessments that are accessible and inclusive to all learners and are student-focused and engaging. Student-staff partnership is fundamental to EAT and provides avenues for dialogue and developing assessment literacy for all stakeholders in the learning process.

Daily, J. A., & Landis, B. J. (2014). The journey to becoming an adult learner: from dependent to self-directed learning. J Am Coll Cardiol, 64(19), 2066-2068.
Evans, C. (2013). Making sense of assessment feedback in higher education. Review of Educational Research, 83(1), 70-120.
Evans, C. (2016/2020). Enhancing assessment feedback practice in higher education: The EAT Framework. University of Southampton, Southampton 33pp. Accessed from: https://eatframework.com; https://eprints.soton.ac.uk/417264/
Evans, C. (2020). Enhancing assessment feedback practice in higher education: The EAT Framework. Extended version. Accessed from https://eatframework.com
Nicol, D. J., & McFarlane-Dick, D. (2006). Formative assessment and self-regulated learning: A model and seven principles of good feedback practice. Studies in Higher Education, 31, 199-218.
Zimmerman, B. J. (1990). Self-regulated learning and academic achievement: An overview. Educational Psychologist, 25(1), 3 - 17.

Enhancing Engagement in the Flipped Classroom

Caleb Adams, Radford University

Classrooms of all education levels have increasingly utilized the flipped classroom model. One challenge to improve student experiences instructors face is creating a variety of interesting and engaging activities. When activities are structured and parallel to the course content, the flipped classroom can benefit students greatly. Although activities can be designed to dig deeper into the content, how receptive are students to investigations that go beyond the base content delivered? As subject matter difficulty increases, some students may prefer lecture elements during class meetings. During this conversation participants will discuss approaches utilized to improve student engagement in the flipped classroom.

Goals and Objectives

This Conversation Session proposes the following objectives:

- Participants will identify and share student engagement activities utilized in their flipped classrooms.
- Participants will discuss alternative activities they can use in their classrooms to enhance student engagement during class meetings.
- Participants will identify tactics currently applied to improve student engagement and foster deeper learning.

Description of the Topic to be Discussed

The primary topic presented is a discussion of how instructors can improve the flipped classroom model to enhance student experiences and participation by varying the student-centered activities utilized during classroom meetings. Participants will be asked to provide how they vary the types of activities used in their classes and what types of activities they find works well and what type does not work in their own flipped classes. Instructors that are interested in improving their own flipped classes or transforming their traditional class to a flipped model of their current class are encouraged to attend and participate in this conversation.

Facilitation Techniques

The conversation session will begin with a brief overview of the benefits of the flipped classroom model, including some of the mediator's personal experiences. Participants of the session will then be given instructions to facilitate the overall conversation. Small break-out groups will be provided approximately 8 minutes to discuss topics as delivered by the mediator.

The topics for discussion include:

- What types of student-centered activities do instructors utilize in their courses?
- Although the subject areas will differ, it is anticipated that the different types of activities utilized can be crossed over from one subject to another.
- Which type of activities are found to be most beneficial? Least beneficial? What can we do to improve the most beneficial forms of the activities? What can instructors do to improve activities that they deem less beneficial?
- How often do you incorporate instructor-led items during classroom activities? Is there a benefit to instructors intervening during the student-centered activities?
- Whether from personal experiences or from literature read, what are some of the best forms of student activities that promote engagement within the classroom?

A quick summary session will follow each topic discussion (a maximum of 5 minutes per topic) with the mediator recording results. For the interested participants, the mediator will collect contact information in order to continue the conversation following the conference.

Adams, C. & Dove, A. (2017). Calculus Students Flipped Out: The Impact of Flipped Learning on Calculus Students' Achievement and Perceptions of Learning. PRIMUS, 28, 600-615.
Awidi, I. & Paynter, M. (2019). The impact of a flipped classroom approach on student learning experience. Computers & Education, 128, 269-283.
Danker, B. (2015). Using Flipped Classroom Approach to Explore Deep Learning in Large Classrooms. The IAFOR Journal of Education, 3(1), 171-186.
Davenport, C. (2018). Evolution in Student Perceptions of a Flipped Classroom in Computer Programming Course. Journal of College Science Teaching, 47(4), 30-35.
Rathner, J. & Schier, M. (2020). The impact of flipped classroom andragogy on student assessment performance and perception of learning experience in two advanced physiology subjects. Advances in Physiology Education, 44(1), 80-92.

Enhancing multimodal student engagement: Authentic learning across our global network

Alex Fronduto, Lindsay Portnoy, Elizabeth Zulick, Northeastern University

This workshop provides faculty with useful and actionable tools to innovatively enhance student learning and inclusion without increasing faculty workload. Faculty presenters share innovative tools for multimodal learner engagement, including resources to "think outside the classroom", authentic and real-world application of assessments to increase learning. Utilizing these approaches ensure faculty provide more inclusive learning experiences and stronger communities to address our diverse student population. Lastly, the workshop will highlight industry collaboration through real-world applications of assessments, utilization of co-op/experiential network opportunities within courses, industry/practitioner panels embedded in coursework, internal/external networking, and enacting applied field research.

A shared goal of innovation, inclusion, and collaboration connected three faculty across distinct paths within the College of Professional Studies (CPS) at Northeastern University for this workshop about enhancing multimodal student engagement towards more authentic learning experiences for students across our global network. Our shared experiences highlight common themes across CPS to support learners through more authentic coursework and corresponding assessment, more experiential driven learning practices, and innovative approaches for connecting with learners to help them thrive. Examples include being more meaningful in faculty-student connection and addressing common barriers (such as considering varying student backgrounds, time zones, and student needs).

Together we share how to implement novel practices across our programs to meet CPS students where they are, whether entering the pipeline to bachelor completion programs to those engaged in their MEd or pursuing their EdD and the steps we take to make each student's experience across the global network more authentic, inclusive, and engaged to ensure future success. From establishing innovative digital routines to increasing collaborative work and enhancing feedback, presenters will share how they leverage simple tools to lessen their work and meet students where they are to increase engagement and deepen learning. As a group, we'll discuss how to engage students in multimodal ways, create more authentic assessments, and in general work to be more innovative and inclusive while collaborating across industries. Attendees will leave with organizational approaches for restructuring coursework that simultaneously lessens faculty workload while closing the loop from question to solution.

Flooring Leadership Education with the F-Words: Followership & Feedback

Lori Throupe, Lacey Grey Hunter, Lawson Herold, Anna Lynn Thornsberry, Christopher Newport University

The swirl of recent forces impacting the globe and leadership education have amplified the necessity for practical application and skill-development for engagers of leadership. Though literature on the domain of leadership skill development remains scarce, scarcer still is research on followership skill development. Yet there is evident promise in integrating methods for follower-leader skill development through training, practice, and feedback. This practice session focuses on an experiential/demonstrated integration of three resources for such development: Hurwitz and Hurwitz' (2015) Generative Partnership Model, the use of Radical Candor (TM) as a feedback mechanism, and the Collegiate Leadership Competition (CLC) practice field.

The swirl of recent forces impacting the globe and leadership education have amplified the necessity for practical application and skill-development in aspiring engagers of leadership processes. Though literature on the domain of leadership skill development remains scarce, scarcer still is research on followership skill development. Yet there is evident promise in integrating methods for follower-leader skill development through training, practice, and feedback. This practice session focuses on an experiential/demonstrated integration of three resources for such development: Hurwitz and Hurwitz' (2015) Generative Partnership Model, the use of Radical Candor (TM) as a feedback mechanism, and the Collegiate Leadership Competition (CLC) practice field.

Marc and Samantha Hurwitz's (2015) Generative Partnership Model focuses on distinct, role-based, leader-follower skill pairings for effective partnership and collaboration. The model is based on a vision of leader-follower roles as "distinct, separate, and equal," and complementary in nature. This foundation allows for a unique recognition of followership as a distinct skill set evidenced as capable of development and valuable in the workplace--and this alongside a distinct leader skill set equally capable of development with evidenced value. The model serves as a framework for particular focus on followership skills in the context of role-play associated with real-time competitive challenges. One such skill pairing includes a leader's "cascade communication" and follower's "dashboard communication" within the partnership, emphasizing the delivery and reception of feedback.

Timely, direct, and caring feedback is also an essential component of effective leader-follower relationships. Generally speaking, the term feedback usually carries with it a negative connotation. Furthermore, it is often assumed that only those in the role of designated leader may yield the power to provide feedback. However, in order for a generative partnership to exist at its full potential, both leader and follower must engage in the process of providing timely and direct feedback. In order to influence a perception change surrounding the act of feedback, we will discuss the Radical Candor Framework and underscore the importance of both leader and follower to "care personally and challenge directly". By asking that both leader and follower engage in the practice of providing feedback at the conclusion of team challenges from the CLC, participants are provided with the opportunity to further develop their ability to identify what others should continue doing / stop doing in order to better achieve the group's goal. Additionally, developing the skill of providing feedback to one another is an exemplification of magnifying the follower's role in contributing to a generative partnership. When provided regularly, feedback may also contribute to a team's effectiveness when approaching team competitions of the CLC.

CLC offers a deliberate practice field providing ample opportunity for follower-leader skill development through the use of interactive team problem solving activities and feedback. Using a CLC activity, participants will experience elements of Hurwitz and Hurwitz' (2015) Generative Partnership Model and practice feedback empowered by the Radical Candor (TM) Framework.

Allen, S. J., Jenkins, D. M., and Krizanovic, B. (2018). Exploring deliberate practice & the use of skill sheets in the collegiate leadership competition. Journal of Leadership Education. Volume 17(1 C3), p. 28-34.

Hurwitz, M. and Hurwitz, S. (2015). Leadership is half the story: a fresh look at followership, leadership, and collaboration. Toronto: University of Toronto Press.

Scott, K. (2021, July 1). Feedback & RADICAL Candor: Our simple approach to guidance. Radical Candor. Retrieved September 30, 2021, from https://www.radicalcandor.com/our-approach/.

Fuel Student Engagement with Slow-Motion Debates

Josh DeSantis, York College of Pennsylvania

Looking to maintain the high levels of engagement associated with debates in online and asynchronous classes? Slow-Motion Debates could provide an answer. This session will present an approach to deploy technology to reproduce the debate experience for students. Attendees will also learn the results of an exploration of a study exploring the impacts of this approach among graduate education students.

Rooted in the Greek tradition of Socrates and Aristotle, debates utilize the interpersonal 'heat' that comes with a clash in opinion to engage students in learning. Well-structured debates can draw students into a topic, give them agency, and challenge them to see the layered perspectives that lie under the surface of topics across the curriculum.

The proliferation of on-demand and asynchronous learning approaches present challenges for instructors who wish to hold live, synchronous, debates. Session attendees will explore a technology-enhanced approach designed to achieve the benefits of live debates asynchronously. Attendees will also learn the results of a research project that analyzed the learning outcomes one application of asynchronous debating.

Participants in the project were graduate students who worked in teams to create media-driven persuasive presentations defending a position to which they were assigned for a course. They then interacted with their opponents by viewing their competitors' presentations and asking their opponents challenge questions using a video discussion board tool called Flipgrid. Each team then fielded questions in their own Flipgrid-based discussion board asked by their opponents and from an 'audience' composed of other students in the class who were debaters assigned different motions.

This session culminates in a presentation of the results of a study assessing the effects asynchronous debates had on participants' knowledge of the course content explored in the debates, their perceptions of the utility of debating for helping them learn, and their conception of the efficacy of asynchronous debating.

Findings from the project reveal the effectiveness of asynchronous debating as a mechanism for building students' knowledge and the utility of emerging technologies for sustaining high-quality classroom debates.

Cheese, F. (2015). Use online debates to enhance classroom engagement. In B. Chen & K. Thompson (Eds.), Teaching Online Pedagogical Repository. Orlando, FL: University of Central Florida Center for Distributed Learning. https://topr.online.ucf.edu/use-online-debates-to-enhance-classroom-engagement/.

Chen, C. C., & Swan, K. (2020). Using Innovative and Scientifically-Based Debate to Build e-Learning Community. Online Learning, 24(3), 67-80.

Kennedy, R. (2007). In-class debates: Fertile ground for active learning and the cultivation of critical thinking and oral communication skills. International Journal of Teaching & Learning in Higher Education, 19(2).

Kennedy, R. R. (2009). The power of in-class debates. Active learning in higher education, 10(3), 225-236.

Going Way Back: Reflections on 6 Years of VTDITC

Craig Arthur, Freddy Paige, Virginia Tech

For more than 6 years, numerous organizations have collaborated to create VTDITC: Hip Hop Studies at Virginia Tech. VTDITC is a unique, iteratively-developing culturally responsive program. We prioritize celebrating creativity, transdisciplinary experiential learning, and critical community engagement. Deeply rooted in hip hop culture and pedagogy, we center practitioner voices while also including academic perspectives. This practice session will expand on our 2019 Conference on Higher Education Pedagogy presentation. This time we will focus on the experiences of our student leaders - VTDITC's Community Engagement Fellows. We look forward to sharing what we have learned - and unlearned - with you.

VTDITC: Hip Hop Studies at Virginia Tech is an award-winning transdisciplinary, experiential learning and critical community engagement-focused program that takes place across Southwest Virginia. Thanks in part to the pandemic, our reach is now global. VTDITC: Hip Hop Studies at Virginia Tech is deeply rooted in hip hop culture and pedagogy. The program is cosponsored by roughly a dozen organizations. Our team currently consists of eight Virginia Tech student leaders, several of Virginia Tech's creative arts-focused student organizations, the campus radio station, the Cultural & Community Centers, Student Opportunities and Achievement Resources, a living/learning community, several community-based youth-focused organizations, and faculty members from the College of Engineering, the University Libraries, the Department of English, and the College of Liberal Arts and Human Sciences' Dean's Office - amongst many others.

At the time of this proposal, we have designed, developed, and assessed more than five hundred events over the past six years. To highlight a few of our longstanding features, we host a monthly seminar series as well as weekly studio hours in a community-designed and constructed recording studio. We also have taught more than one hundred and fifty media literacy workshops in the broader community beyond campus. Simply put, our mission is to: remove barriers to entry, recognize art as scholarship, learn by doing, and, importantly, have fun. This workshop will expand upon our 2019 Conference on Higher Education Pedagogy presentation and will center the perspectives of our Community Engagement Fellows - our team of undergraduate and graduate students who iteratively help design, lead, and assess the program. We look forward to sharing the lessons we have learned - as well as unlearned - over the last half decade with you. Participants will leave this session able to articulate how a do-it-yourself ethos grounded in hip hop culture and pedagogy can be used to create meaningful and potentially transformative programming. They will also have a chance to identify strategic, meaningful partners at their own institutions and in their broader communities. If all goes according to plan, participants will leave with a rough draft of a collaborative, culturally relevant, experiential learning-focused program that is responsive to the needs of their respective communities.

Participants will...

- Be able to articulate how a do-it-yourself hip hop ethos can be used to create meaningful programming
- Be able to identify strategic partners to create experiential learning programs
- Be able to design a draft of an experiential learning-focused program that is responsive to the needs of their communities

La' Portia J. Perkins, Jasmine Weiss, Jon Kabongo, Freddy Paige, and Craig Arthur.(In press). "Media literacy and community connection: A profile of Virginia Tech's Digging in the Crates Hip Hop Studies Program." In Jimmeka Anderson and Kelly Czarnecki (Eds.), Power Lines: Connecting with Teens in Urban Communities Through Media Literacy. Chicago: American Library Association.

Craig Arthur, Freddy Paige, La' Portia Perkins, Jasmine Weiss, and Michael Williams. (2020, December 2). Culturally responsive community engagement programming and the university library: Lessons learned from half a decade of VTDITC. In The Library With The Lead Pipe. http://www.inthelibrarywiththeleadpipe.org/2020/vtditc/

A. Kwame Harrison & Craig Arthur. (2019). Hip-hop ethos. Humanities, 8(1): 39. doi:10.3390/h8010039

Hybrid Teaching & Learning Environments and Strategies for Graduate Students

Callie Victor, Cathy Shanholtz, Shenandoah University

This interactive session will demonstrate how graduate faculty in a hybrid curriculum successfully plan, execute, and evaluate online and face-to-face content delivery in masters and doctoral level programs. Combining online, blended learning, hybrid, and face-to-face into one cohesive experience provides learners with multiple methods for effective learning within all levels of Bloom's Taxonomy. Templates used to align course and weekly objectives with content and assignments will be described and shared allowing participants to trial during the session. Teaching plans to connect online content with in-class activities will be shared including strategies used in the classroom to maintain engagement.

Shenandoah University transitioned their entry level master's of science in occupational therapy (MSOT) program into a hybrid program in 2007 and have had positive outcomes with graduation rates, licensure exam pass rates, and entry-level practitioner job attainment. One day weekly of face to face courses on campus with few additional days spent in the community for experiential learning each semester has yielded a diverse applicant pool and students who can maintain regular work hours while completing online materials during convenient times obtaining ideal work/life/school balance. This setup blossomed into an entry level doctoral program with a different curriculum yet similar teaching and learning approaches.

A hybrid program setup includes multiple learning environments and blending the online and face to face learning requires many mediums of teaching course materials and assessing learning. Teaching adult learners in a hybrid format with limited face to face interactions can be challenging, yet with solid plans that connect the preparatory assignments with engaging teaching strategies, students come prepared, are attentive and motivated to learn.

This interactive session will allow faculty to share their experiences and documents created to plan, execute, and evaluate the online components of content and interactive assignments and the face-to-face interactive activities. The importance of aligning weekly objectives with course objectives as well as with assignments will be shared allowing participants to view examples and ask questions. Templates will also be shared with time devoted to trialing during the session. More detailed teaching plans will be discussed that connect the online materials with face to face materials including the importance of linking new information with learned knowledge, obtaining the students focus, keeping them engaged, and transferring knowledge. Multiple methods for effective learning and assessment of learning using Bloom's Taxonomy will be addressed.

Strategies that promote inclusive learning environments and encourage diversity of thinkers and learners allow students to feel welcome and included, encourage participation, and provide challenge to maintain engagement. Purposeful learning activities will be shared as examples with discussion about transforming participant's current assignments and learning environments.

Immersive virtual learning experience design and implementation: Grinnell Glacier example

Dianna Gielstra, Prescott College
Lynn Moorma, Mount Royal University
Niccole Cerveny, Mesa Community College

Place-based education uses those natural and cultural attributes found in the landscape to explore the environment and provide greater geographical context to learners that help them understand how the physical environment changes over time. Methods for identifying and collecting on-ground instructional assets are explored to build geographical context in the classroom by migrating real world experiences into Virtual Learning Experiences (VLEs) using GeoEPIC, a free Virtual Reality (VR) digital learning platform. The authors use the example of Grinnell Glacier, Glacier National Park, Montana to explore site scientific value and best practices for data collection as a tutorial of the platform.

Landscapes are an important part of culture and identity and act as repositories of aesthetic beauty, utilitarian resources, and scientific value. Place-based education uses those natural and cultural attributes found in the landscape to explore the environment and provide greater geographical context to learners that help them understand how the physical environment changes over time. As new technologies improve access to field-based experiences for the K-16 classroom, methods for identifying and collecting on-ground instructional assets can be used by educators to build that geographical context in the classroom by migrating real world experiences into Virtual Learning Experiences (VLEs). Using GeoEPIC, a free Virtual Reality (VR) digital learning platform, the authors transitioned a Grinnell Glacier, Glacier National Park, Montana field trip into a VLE.

To transition these experiences to an online environment, educators identified insertion points in the curriculum in which geography and geoscience topics provide examples for earth system phenomena and processes focused on physical landscapes that change over time. A Quick Start Template is used to gather information for this identified phenomena and place within these visual landscapes. Once identified, these places and their features are curated for important information used in lesson planning. The example VLE focuses on phenomena of scientific value that emphasize data collection for geomorphology and geodiversity instructional assets (photographs, 3-D LiDAR models, and associated measured attributes). Identified points of interest and information are used in lesson development to help students explore the virtual landscape and explore geomorphic process.

Educators are guided through the best practices for data collection to minimize distortion and remove artifacts of light and shadow. Educators partake in a tutorial of the platform to understand how to upload and embed materials as well as access platform resources to create their own VLEs. The tutorial explores creating a private user account, explores the content builder, available instructional assets, and the VR viewer. Finally, educators can explore available field experiences and lessons to support their instruction on geography, geodiversity, geoheritage and geomorphology topics to offer students a more appealing classroom experience.

Improving Group Project Experiences in Your Classroom

Jennifer Johnston, University of Georgia

Engaging students in group projects is common practice among educators. However, many students are ill-equipped to engage productively, effectively, and with low tension among team members. This session will propose preparing students for group projects by having a mini-lesson on project management framework, skills, tools, and techniques so that students can be aware of how to lead, manage, and participate in a project successfully. The methods and strategies in this presentation are grounded in research and publications from the world's leading organization in project management, the Project Management Institute (PMI).

This session will blend theory, practice, and research to create a way forward in rethinking how we conduct group projects in the classroom. Many of us currently throw students into the project with little preparation. We appear to be missing a step. We have forgotten that they may lack the experience and knowledge of how to manage a project. I propose that it is our responsibility to help them build the skills to do this successfully. This session will offer that we pause and give students the essential skills, tools, and techniques to successfully manage their classroom project. It appears to be current common practice to just release students straight into the project for which they are ill-equipped to lead, manage, and participate.

We will be exploring various ways that we can prepare students for group projects. Topics that will be covered will be helping students to define team member roles and responsibilities, establishing team dynamics, and setting up effective team communication. We will explore various technology that will help students to manage their projects and keep them moving forward. At the same time, maintain a positive learning environment where all members participate in completing the team's objectives.

The session will contain a practice session where we will have a chance to play with some of the techniques that are being introduced. You will leave this session with a handout containing a link to templates, handouts, and a list of helpful online tools to help guide your students through your next classroom group project.

Project Management Institute. (2017). A guide to the Project Management Body of Knowledge(PMBOK guide) (6th ed.). Project Management Institute.

Project Management Institute. (2021). A guide to the Project Management Body of Knowledge(PMBOK guide) (7th ed.). Project Management Institute.

Project Management Institute. (2017). Agile practice guide. Project Management Institute.

Improving Students' Motivation in Classrooms

Juan Manuel Cruz Bohorquez, Nourhan Elatky, Rowan University
Brett Jones, Virginia Tech

The purpose of this practice session is to help professors assess students' motivation in their classroom. Based on the assessment, we will help professors understand how they could change their class' strategies to increase students' motivation. To accomplish this goal, we will do as follows:

- Introduce the five components of the MUSIC Model of motivation.
- Practice on an automated system created for assessing students' motivation.
- Help professors identify instructional strategies that would likely increase their students' motivation.
- Discuss instructional strategies that will likely increase one of the motivational related perceptions, and identify how these will benefit the students' learning process.

During classroom sessions, motivation is usually one of the most effective aspects of enhancing the learning process [1,2]. In fact, it has been shown through studies reported that when teachers keep students motivated, their success and confidence would likely increase [3]. Professors might have ideas of how to increase their students' motivation. However, those ideas are usually based on the professors' own perceptions. Instead, professors should base their ideas on their students' perceptions as well, as it will be more tailored to the students' needs [2]. Yet, gathering and interpreting students data to assess students' motivation can be overwhelming and time-consuming, as it requires data collection, distribution of the instruments, analysis, and interpretation.

To address these problems, we created a streamlined tool that simplifies data collection, distribution of the instruments, analysis, and interpretation of the data. Using this tool will not only help professors assess motivation in classrooms, but also identify which teaching method will increase students' motivation.

The ideas behind this system, are based on the MUSIC Model of motivation. The Music Model is composed of 5 perceptions, entitled as components: empowerment (i.e, the ability to make decisions), usefulness (i.e, understand why what they are learning is useful), success (i.e, believe they can succeed if they put forth the effort), interest (i.e, interested in the content), and caring (i.e, believe that others care about their learning, and them as a person). Thus, the ongoing research on the MUSIC Model provided validated instruments that measure motivation in classrooms. As well as suggestions to professors, that remark possible improvements to their instructional strategies [3].

To accomplish our goals while engaging our audience, we will divide our session into three sections:

1. Introduce the MUSIC Model of motivation. The objective of this section is to explain the MUSIC Model components, their importance, and what research says about its application in classrooms.
2. Introduce the automated system for assessing student's motivation. Attendees will practice this system by taking on the role of their students and answer the survey questions from their students' perspectives. Then, every participant will receive a report based on this assessment. The objective of this section is to determine potential motivation-related perceptions that every instructor attending the session could improve in their classrooms.
3. Participants will form groups based on their report outcome. Every group will focus on the weakest Motivation related perceptions that appeared in their report. With some handouts from the facilitators, every group will discuss new ideas, activities, or strategies that could improve such perceptions. The objective of this section is that every instructor will have at least one activity or idea that could be implemented to support their classes.

Deci, E. L., & Ryan, R. M. (2000). The "what" and "why" of goal pursuits: Human needs and the self-determination of behavior. Psychological Inquiry, 11(4), 227-268.

Jones, B. D. (2010). An examination of motivation model components in face-to-face and online instruction. Electronic Journal of Research in Educational Psychology(22), 915-944.

Eccles, J. S., & Wigfield, A. (2002). Motivational Beliefs, Values, and Goals. Annual Review of Psychology, 53, 109-132. doi:10.1146/annurev.psych.53.100901.135153

Inclusive Teaching Strategies in the Natural and Physical Sciences

Carol Babyak, Maryam Ahmed, Appalachian State University

This session will explore evidence-based inclusive teaching strategies that can be implemented in STEM teaching and learning environments. Inclusive teaching strives to ensure that the needs of all students are met through awareness of self and others, promoting an inclusive classroom climate, and regular curricular review. In this conversation, we focus on classroom climate and pedagogical choices that promote sense of belonging, self-efficacy, and engagement. These strategies are applicable to a variety of STEM courses, regardless of level, size, and content. Through our conversations and co-production of knowledge, we intend for participants' experiences to be meaningful and permanent.

Inclusive teaching strategies for the natural and physical sciences can be organized in a framework that includes self-awareness, empathy, classroom climate, pedagogical choices, and leveraging networks (Dewsbury and Brame, 2019). In this conversation, we focus largely on classroom climate and pedagogical choices that promote sense of belonging, self-efficacy, and engagement. These strategies are applicable to a variety of STEM courses, regardless of level, size, and content.

Our opening question about barriers to student learning (see below) will be an opportunity for participants to write down their answers on post-it notes, which they will then stick to a wall, forming a "map" of our conversation. To facilitate conversation, we will provide a handout of the framework and example strategies under each component (self-awareness, empathy, climate, and pedagogical choices). In the categories of climate and pedagogical choices, however, we will leave space for participants to write down some strategies that they have used. Examples of inclusive strategies will be provided to stimulate conversation, because many instructors are more inclusive than they think; for example, they learn students' names and pronouns, hold office hours at a coffee shop (instead of their offices), and use active learning and case studies. As we work through the handout, participants will participate in think-pair-share activities. When they report out, we will make connections between their ideas and the barriers presented earlier.

In summary, this roundtable conversation provides evidence-based strategies that instructors can easily implement in their STEM classes. We think that some instructors may realize that while they are implementing inclusive practices in their teaching, there is always room for improvement. We will model active teaching strategies, which are more inclusive than lecturing. Through our conversations and co-production of knowledge, we intend for participants' experience to be meaningful and permanent, which is exactly what we want for our students.

Session Questions:

- What barriers to learning have you seen in your classes? Or, why do you think students have difficulty succeeding in STEM courses at the college level?
- As a student, have you been in a classroom that was not inclusive? How did this make you feel?
- What does an inclusive classroom look like to you?
- What types of assignments do you think are most inclusive for engaging diverse students and including diverse perspectives?

Dewsbury, B. and C. J. Brame. Inclusive Teaching. CBE Life Sci. Educ. 2019, 18, 1-5. DOI:10.1187/cbe.19-01-0021

Indigenous Education; pedagogy supporting equity, empowerment, sustainability, and community transformation

Mae Hey, Virginia Tech

Transformational Indigenous teaching and learning praxis moves us beyond additive and contributive contemporary educational practices, which cultivate complacency, into a realm of creating real change through stoking the inner fires of our next generation. This model draws upon the wisdom of our ancestors to re-inhabit ways of learning that were designed to support the continuance of our thoughtful co-evolution with our planet. As all people originally carried brains built for co-evolution with places, this model, although drawing from ancestral Indigenous wisdom, is relevant to all human learning and creates a way for all people to reach unique potentials for contribution.

Workshop abstract: Learning to value ourselves as uniquely endowed, understanding our irreplaceable fit into the social and environmental fabric, and becoming active agents woven into our communities maximizes our capacity for sustainability as well as progressive change through empowerment. Effective practices in orchestrating empowering learning environments exist that have ancient and proven roots but have become marginalized in contemporary education. These ways focus on fostering the development of unique gifts and group cohesion, as opposed to independence and competition, the latter being ideologies not found in Nature when it is in balance and harmony. This paradigm reversal reclaims critical problem-solving skills and evokes transformative action by increasing the diversity of perspectives and talents focused on an endeavor. This shift can occur through strategized cultivation of cultural, cognitive, and creative capital--gifts endowed to humankind enabling our sustainable co-evolution places.

Workshop purpose: This workshop introduces a framework to help foster educational reclamation for aligning curriculum with Indigenous teaching methods. It gives us a protocol for centering our learning environments on relatedness to ourselves, each other, and Land, cultivating greater community empowerment and environmental sustainability.

Key learning objectives:

- Participants will be exposed to the rationale that makes a transformational Indigenous teaching and learning praxis model relevant to contemporary educational needs.
- Participants will leave with a framework for moving their own lesson planning and curriculum design beyond cumulative and additive models of education into realms for transformational Indigenous praxis.
- Participants will examine the model in relation to their own work and have opportunity to ask questions to increase its efficacy for them.

Workshop method: This workshop will follow a 5-E (engage, explore, explain, elaborate, and evaluate) to optimize alignment with natural learning rhythms as well as allow the participants to construct meaning related to and familiarity with both the 'why' and the 'how' of this approach.

- Engage: participants will be introduced to the rationale for the model using storytelling.
- Explore: participants will discuss this story and how it relates to their work.
- Explain: the model will be introduced using discussion and graphics
- Elaborate: participants will discuss the model and how it relates to their work.
- Evaluate: participants will share, with the group, their questions and concerns about implementing the model in their work.

Instructional Strategies for Engaging Students Through Diverse Modalities

Anna Kambach, Donna Fortune Fogelsong, Nancy Bradley, Virginia Tech

Participants will interact with multiple instructional tools and strategies for engaging students in person, online, or in a hybrid setting. Participation will include using digital tools such as Jamboard, Canva, Flipgrid, Kahoot, and Flipsnack. Strategies will include methods for engaging in small groups with students, such as breakout rooms, interactive discussion boards, and flipped learning. Participants are encouraged to bring a device to this practice session.

Instructional Strategies For Engaging Students Through Diverse Modalities will provide a bridge for what we've learned from implementing online instruction into the present teaching climate. As we return to face-to-face instruction, we remain in the digital era of teaching where online and hybrid teaching are common. In order to implement new strategies effectively and engage students across classroom settings, teachers need the opportunity to utilize new tools and practice those skills to provide scaffolds for implementation in a learning environment (Cuban, 2013; Darling-Hammond, et al., 2019; Meier, 2015, 2021).

This practice session will provide practitioners the chance to interact with multiple engagement tools and instructional strategies that work across various learning modalities and with diverse students. Tools will be modeled for participants and examples will be provided for how they can be used in multiple settings. Participants will interact with tools, including:

- -Google Jamboard: An interactive whiteboard that allows for real time collaboration. It includes text, image, sticky note, and drawing capabilities.
- -Canva: A graphic design platform that allows students to create and apply knowledge in authentic ways.
- -Kahoot: Kahoot, and other platforms, allow instructors to develop interactive quizzes that can be presented in a game-like manner. This platform has teacher made materials as well as the ability to create content specific activities for review or assessment.
- -Flipsnack: Educators and students can add videos, audio files, website links, or interactive photos to presentations or instructional materials. It also includes the ability to create flipbooks from pdf documents to more actively engage students in applying their learning.

Including technology platforms or resources in a classroom to engage students requires purposeful and planned instructional activities (Meier, 2021). In addition to the above tools, participants will discuss the benefits of using a flipped classroom, where students come with knowledge to enhance interactive, engaged discussions. Participants will also engage in methods of improving discussions through small group work, including how to use breakout rooms to make small group discussions meaningful and successful when in an online or hybrid setting.
Including new teaching strategies is often challenging and requires ongoing, systematic and purposeful modeling by facilitators to engage and support participants in building confidence to implement the new techniques in their own teaching practices. This practice session is specifically designed to facilitate an engaging discussion with authentic practice activities and resources for participants to enact these strategies and ideas in their upcoming courses.

Bradley, N., Fogelsong, D. (2021). Building community in a pre-service teacher cohort during a pandemic. The Teacher Educators Journal, 14, 43-60.

Cuban, L. (2013). Inside the black box of classroom practice: Change without reform in American education. Harvard Educational Press.

Darling-Hammond, L., Hyler, M. E., & Gardner, M. (2017). Effective teacher professional development. Learning Policy Institute.

Darling-Hammond, L., Flook, L., Cook-Harvey, C., Barron, B., & Osher, D. (2019). Implications for educational practice of the science of learning and development. Applied Developmental Science, 24(2), 97-140.

Meier, E. (2015) Beyond a digital status quo: re-conceptualizing online learning opportunities. Bank Street Occasional Paper Series 34. Retrieved from https://educate.bankstreet.edu/occasional-paper-series/vol2015/iss34/2/

Meier, E. B. (2021). Designing and using digital platforms for 21st century learning. Educational Technology Research and Development, 69(1), 217-220.

Maintaining course quality, integrity, and rigor between multiple modalities

Jessica Julak, University at Buffalo
Michael Forder, Virginia Commonwealth University

Colleges and universities, welcoming students back to campus for in-person learning, are challenged to continue offering online and hybrid course alternatives launched in response to the pandemic. Instructors now offering in-person and online sections must ensure that sections remain aligned while respecting the differences in the modalities. This interactive practice session will discuss questions that instructors might consider when designing and teaching in-person and online courses to ensure curriculum alignment. Participants will engage in class discussion around practical considerations for alignment between course types. Activities and resources will be provided for faculty to workshop their own courses.

At their core, the various course modalities (e.g., in-person, asynchronous online) share many attributes; they require students to attend class, learn and interact with course materials, and complete individual and group projects. Prior to the COVID-19 pandemic, student interest in online learning was increasing (Paul & Jefferson, 2019) and colleges and universities were increasing the number of online courses they offered to meet student demand (Lundberg et al., 2008). In fall 2019, one-third of undergraduate students nationally had at least one online course (National Center for Education Statistics, 2021). COVID-19 forced instructors and students into the online teaching and learning arena, ultimately creating significant changes that will remain in the post-COVID era (Lockee, 2021).

Currently, colleges and universities are welcoming students back to campus for in-person learning, while challenged to continue offering online and hybrid course alternatives. The rapid increase in section offerings and a shift towards HyFlex course delivery will challenge instructors to teach in multiple modalities. Instructors offering in-person and online sections are in the unique position of ensuring those course sections remain aligned while being responsive to the environmental structures, student expectations, and best practices associated with each modality.

This interactive practice session will discuss questions that instructors might consider when designing and teaching in-person and online courses to ensure curriculum alignment. Sharing lessons learned from administering multiple course sections in different modalities, we will highlight decisions that instructors face when deciding between modality-specific and uniform design approaches. A tool will be shared to determine the level of alignment between course types for select class actions and the justification for diverging away from a single class design. Participants will engage in class discussion around practical considerations (e.g., responding to program needs, accrediting body requirements) and will conclude with some guiding questions for faculty to consider.

Brooks, D.C. (2021). Student experiences learning with technology in the pandemic. Accessed September 16, 2021 at: https://www.educause.edu/ecar/research-publications/2021/student-experiences-learning-with-technology-in-the-pandemic/learning-environment-and-course-modality

Ladson-Billings, G. (2021) I'm Here for the Hard Re-Set: Post Pandemic Pedagogy to Preserve Our Culture. Equity & Excellence in Education, 54(1), 68-78, doi:10.1080/10665684.2020.1863883

Lockee, B. (2021). Online education in the post-COVID era. Nature Electronics, 4, 5-6.

Lundberg, J., Castillo-Merino, D., and Dahmani, M. (2008). Do online students perform better than face-to-face students? Reflections and a short review of some empirical findings. RUSC Universities and Knowledge Society Journal, 5(1), 35-44. doi: 10.7238/rusc.v5i1.326

National Center for Education Statistics. (2021). Fast Facts: Distance Learning. Accessed September 16, 2021 at: https://nces.ed.gov/fastfacts/display.asp?id=80

Paul, J. & Jefferson, F. (2019). A comparative analysis of student performance in an online vs. face-to-face environmental science course from 2009 to 2016. Frontiers in Computer Science, 1(7), 1-9. doi: 10.3389/fcomp.2019.00007

Mindfulness Pedagogy: Making Space for Difficult Conversations with Visualization Exercises

Courtney Ross, Virginia Tech
Alan Forrest, Radford University

From uprisings against police brutality, sites of humanitarian crises to a global pandemic, what pedagogical tools help students focus their attention and explore the challenges people face? The gravity of such knowledge can impact a student's emotions and also challenge their interests, passions, and capacity to learn. How instructors begin or transition into difficult conversations can inspire feelings of hopefulness and empowerment. By shaping the process and content of learning, mindfulness pedagogy assists in quieting the mind by inviting students to slow down and engage deeply. Attendees will participate in and learn how to integrate these pedagogies into their classrooms.

From uprisings against police brutality, political polarization, sites of humanitarian crises to a global pandemic, what pedagogical tools help students to focus their attention and make space to explore the challenges people face? The gravity of such knowledge can impact a student's emotions and also challenge their interests, passions, and capacity to learn. The ways that instructors begin or transition into difficult conversations in the college classroom can inspire feelings of hopefulness and empowerment. By shaping the process and content of learning, mindfulness pedagogical tools assist in quieting the busy mind by inviting students to slow down and engage deeply with course materials in a novel way.

The practices also promote empathy and compassion while building a communal space within the classroom. In this experiential session, conference attendees will participate in visualization exercises and will learn how to integrate them into the classroom including potential modifications and strategies for addressing pushbacks by students. Departmental and institutional fit will also be explored with the various modalities that work for integrating visualization exercises and mindfulness pedagogy in general. Discussion will be encouraged on the curricular inroads of mindfulness pedagogies across academic disciplines.

Perspectives on using data for teaching in the social sciences

Kayla McNabb, Virginia Tech
Melanie Gainey, Emma Slayton, Carnegie Mellon University
Gayle Schaub, Samantha Minnis, Grand Valley State University
Wendy Mann, George Mason University
Samantha Guss, University of Richmond

Through an Ithaka S+R project, twenty universities investigated how instructors teach with data in the social sciences. These researchers interviewed instructors from the social sciences and related areas, with the goal of revealing not only their practice for working with data in the classroom, but also factors that influence their and their students' ability to meet challenges as they arise. This conversation will bring together members from five participating universities to discuss their findings and to start a discussion about how libraries, various types of campus support, and academic departments can impact the future of data literacy education.

The Ithaka S+R Teaching with Data in the Social Sciences project allowed twenty American colleges and universities to explore how faculty are helping their students develop foundational data skills through courses in the social sciences and serves as the background for this conversation discussion. Through this project, the researchers found that, as students look toward engaging with a more data-driven world, they continue to need explicit training and support in exploring these foundational skills to become data literate. Ithaka S+R characterizes data literacy as "a complex skill set that includes the ability to find, evaluate, and communicate data as evidence, and to understand the systems that enable its interpretation and use." Better understanding these needs and the current practice across various institutions served as the motivation for this project.

Through our interviews, the researchers found that undergraduate instructors in the social sciences use data in a variety of ways, to achieve a variety of pedagogical goals. From introductory level courses in anthropology, geography, sociology, economics, and psychology to advanced research methods and capstone courses in the disciplines, students locate, access, and collect data and use it to answer questions, identify patterns, explain social issues, visualize phenomena, forecast trends, make conclusions, and generate hypotheses. Librarians and other data experts can provide foundational support for locating appropriate datasets and for identifying tools to help students manipulate, understand, and visualize data. Furthermore, the Teaching with Data in the Social Sciences project is part of an ongoing research program investigating teaching practices and needs and provides valuable insights into the current landscape of incorporating data into instruction in social science-related fields

In this panel, researchers from five participating institutions (Carnegie Mellon University, George Mason University, Grand Valley State University, Virginia Tech, and the University of Richmond) will briefly share their findings and recommendations for ways that libraries, and other campus groups can offer critical support and collaboration to help students become proficient users and critical consumers of data and will prompt the attendees to consider how they engage students with data literacy and how they and their campus communities might better support this kind of work.

Session Questions:

- How prepared are students and faculty for working with data in your classrooms; what are their challenges?
- Who on your campus offers support for working with data in the classroom, and if you are an instructor, do you take advantage of this support?
- What recommendations do you have for supporting data education in the social sciences? If you are an instructor, what type of support would you like to see?
- How can we better prepare students in the social sciences and beyond to apply data literacy as they move into the workplace or on to graduate programs, and what can academic programs or departments do to help students develop these skills?

Cooper, D. (2019, July 29). Announcing two new S+R projects on supporting Data Work. Ithaka S+R. Retrieved September 30, 2021, from https://sr.ithaka.org/blog/announcing-two-new-sr-projects-on-supporting-data-work/.

Pins and Posts: Using Pinterest and Instagram in the Classroom

Christine McCown, Virginia Tech

This session will demonstrate how social media platforms--specifically Pinterest--can be utilized not only for an icebreaker activity in helping students build connections (particularly in online courses), but also to teach about subject specific concepts. Session attendees will create their own Pinterest board and participate in an icebreaker activity. Attendees with then be guided through how this same board could be used to teach concepts like Identity and Self-Presentation in a Sociological Social Psychology class before being given an opportunity to brainstorm ways that it could be used in their own classroom.

While Pinterest and other social media platforms such as Instagram have been used as a course resource for supplemental information (Ganjoo et al 2021, Nguyen et al 2021, Pearce and Learmonth 2013), a tool for teaching organization (Buffington 2013), and a place to potentially create an online community of inquiry (Fornara and Lomicka 2019), these platforms have rarely been explored as useful tools for learning within the classroom. Pinterest has successfully been used to facilitate cross cultural awareness in an introductory Spanish course (Mitchell 2018), to simulate future career activities and interactions between Design students and clients (LaPolla 2014) and to help social work students how to develop a professional presence online, along with determining what content would be appropriate for them to post in that role. (Baker & Hitchcock 2015) These applied techniques offer an opportunity for a type of experiential learning that is accessible no matter where students are physically located and are just a few examples of ways that Pinterest can be used as a formal learning tool in the classroom. Pinterest is a tool that, if utilized in the classroom, will not only reach students who lean more toward a visual learning style, but also has the potential to increase student engagement in assignments and social presence in online communities of inquiry for online and asynchronous courses.

This session will demonstrate how these platforms--specifically Pinterest--can be utilized not only in an icebreaker activity for helping students build connections (particularly in online courses where the opportunity to interact with classmates is limited), but also to teach about subject specific concepts. Session attendees will create their own Pinterest board and participate in an icebreaker activity and then be guided through how this same board could be used to teach concepts like Identity and Self-Presentation in a Sociological Social Psychology class before being given an opportunity to brainstorm ways that it could be used in their own classroom. Other demonstrations of how Pinterest can be used as a source for other activities (organization, categorization, etc) will be tied into these ideas as participants come up with them, with a strong emphasis on why the platform would be effective. Common pitfalls and concerns will also be addressed. The goal is for attendees to end the session with a concrete idea for utilizing Pinterest in their courses and an understanding of why incorporating this technology stands to improve not only student engagement, but student performance.

Baker, Lisa R. and Laurel Iverson Hitchcock. 2017. "Using Pinterest in Undergraduate Social Work Education: Assignment Development and Pilot Survey Results." Journal of Social Work Education 53(3):535-45.

Buffington, Melanie L. 2013. "Organizing with Pinterest and Delicious" pp. 15-24 in The Plugged-In Professor: Tips and Techniques for Teaching with Social Media. Ferris, Sharmila Pixy and Hilary Anne Wilder, eds. Oxford: Chandos Publishing. Retrieved September 30, 2021 (https://ebookcentral.proquest.com/lib/vt/reader.action?docID=1574982).

Fornara, Fabrizio and Lara Lomicka. 2019. "Using Visual Social Media in Language Learning to Investigate the Role of Social Presence." Calico Journal 36(3):184-203.

Ganjoo R, Schwartz L, Barzani Y, and Firmani M. 2021. "Exploring Instagram to Promote Student Engagement in an Online Didactic Environment." Journal of Microbiology & Biology Education 22(1).

Lapolla K. 2014. "The Pinterest Project: Using Social Media in an Undergraduate Second Year Fashion Design Course at a United States University." Art, Design and Communication in Higher Education 13(2):175-87.

Mitchell C. 2019. "Pinterest: A Vehicle to Promote Cross-Cultural Awareness in an Introductory Spanish Course." Hispania 101(4):573-86.

Nguyen VH, Lyden ER, and Yoachim SD. 2021. "Using Instagram As a Tool to Enhance Anatomy Learning at Two Us Dental Schools." Journal of Dental Education 85(9):1525-35.

Pearce, Nick and Sarah Learmonth. 2013. "Learning Beyond the Classroom: Evaluating the Use of Pinterest in Learning and Teaching in an Introductory Anthropology Class." Journal of Interactive Media in Education Aut 2013.

Practical Strategies for Conducting Classroom Peer Review in Virtual Environments

Laura Vernon, Radford University

Student peer review of writing is a common academic and workplace practice. Because of the pandemic, educators are moving from in-person to virtual peer reviews and are looking for creative ways to engage students in a productive process. Peer review skills begin in college and can improve over time with informed guidance and practice. By attending this presentation, participants will learn a step-by-step method for conducing virtual peer reviews of student writing, brainstorm other peer review methods to include other disciplines, formulate diplomatic language necessary for proper feedback, and plan or set goals for incorporating peer review into their classrooms.

Peer reviews of writing assignments conducted by students is a common practice in college classrooms, especially in English courses where the writing process is emphasized. In-person peer review had been the norm until the rise of the pandemic that resulted in social distancing rules and movement of many courses to an online learning environment. While some in-person peer review practices still work virtually, many do not; therefore, there has been a need for educators to explore new ways of conducting effective peer review with their students. Peer review is also a common workplace practice that students need to know how to perform in all disciplines, especially in courses where quality writing is expected. The need for more instruction on how to conduct effective writing peer review, in a virtual environment specifically, is becoming more crucial because students must know how to engage in a productive peer review process and provide diplomatic feedback that improves the work product as well as the writing team's ability to function. These skills begin in the college environment and can improve over time with informed guidance and practice.

The purpose of this presentation, therefore, is to equip college educators in all disciplines with practical strategies for guiding students through a time-tested peer review process for writing assignments. Based on her experience, the presenter will review a method for conducting peer review in a virtual learning setting while also noting how the method can work, with some adjustment, in an in-person peer review setting. Additionally, the step-by-step method will include strategies for helping students formulate diplomatic language to improve their skills for giving feedback in a professionally compassionate way.

The presenter recognizes that there are multiple ways of conducting classroom peer review; therefore, time will be allocated to provide participants with opportunities to share their peer review experiences and brainstorm new, creative ways of engaging students in the peer review process. Through this interactive practice session, participants will:

- Gain a better understanding of student peer review for writing assignments
- Consider possible ways of using a similar process with non-writing assignments
- Understand how to adjust a virtual peer review process for an in-person peer review process
- Write diplomatic language to help students give proper feedback during a peer review
- Reflect on their own peer review methods and language
- Develop a plan for adopting a new peer review process or improving a process they already use in their classrooms
- Set goals for further exploring the strategies they learned during the session

Refugee Simulations as Experiential Learning Opportunities to Improve Empathy

Amy Anderson, Gonzaga University
Scott Greenberger, Kelly Maguire, Tara Chavez, Cheryl Martin, Grand Canyon University

Experiential learning helps students create knowledge through active participation in lessons. One relevant immersion activity is the refugee simulation, which lets participants "walk in the shoes" of refugees while in their rehoming process. Using this example, presenters will guide participants through the experiential learning model. First, the concrete activity will be explained in a reflective-narrative format. Next, a reflection guide will be presented to create meaning from the activity. Then, participants will learn to analyze new insights and be guided through the application stage. Presentation participants will leave with skills to implement experiential activities, like refugee simulations, in their classrooms.

Students are experiencing unprecedented stress due to increased uncertainty in the world today. They are dealing with ever-changing health guidelines, new classroom modalities, and their teachers are suffering from burnout. This increased stress can lead to disengagement in the classroom (Goss & Sonnemann, 2017).

Educators who want to keep their students engaged should consider implementing experiential learning opportunities in their classes. Seminal authors posited that experiential education involves students' active participation in the class lessons and noted that deep learning occurs as students reflect on their experiences (Dewey, 1938/1991; Kolb, 1984). The experiential learning model was designed to help students progress through a four-stage cycle where students (1) have a concrete experience followed by (2) reflection on the experience, which leads to (3) an analysis of the experience and conclusions which can then be (4) tested and implemented in the future (Kolb, 1984).

This presentation introduces a refugee simulation as an experiential learning opportunity to enhance empathy with the ever-growing refugee population (Anderson, working paper; Harvey & Wynn, 2021). Speakers will apply the experiential learning model to this immersion activity by discussing the concrete experience of the simulation, explaining how reflection can help students construct knowledge from experience, assisting participants to draw conclusions from this interactive lesson, and then elaborating on how to apply what was learned.

In the experiential learning model, the first stage occurs when students encounter a new experience or situation (Kolb, 1984). This presentation will utilize a refugee simulation as an example of an immersive experience designed to enhance empathy for refugees. The presenters will elaborate on this experience in a reflective-narrative format, including backstory, characters, and setting (Greenberger et al., in press).

The next stage in the experiential learning model is where reflection occurs (Kolb, 1984). The presenters will define and explain the importance of reflective thinking. In addition, a reflection guide based on Greenberger's Guide for Reflective Practice will be presented as an aid to create new knowledge through active and engaged teaching and learning (Greenberger, 2020).

The third stage is where abstract conceptualization occurs (Kolb, 1984). Students utilize the information from previous stages to analyze what they've learned. The presenters will model conceptualization by discussing how participants in a refugee simulation may identify their incorrect stereotypes or pre-conceived notions about refugees.

Finally, the experiential learning model concludes with an application stage (Kolb, 1984). This part of the presentation will include action steps for participants to utilize knowledge gained throughout this experience. As refugee simulation participants gain important insights into the lived experiences of refugees, they have a new sense of empathy and want to help this vulnerable population.

Experiential learning opportunities, like the refugee simulation, engage students and provide valuable lessons. Students learn empathy by participating in this immersion experience designed to mimic refugees' lived experiences as they rehome in another country (Anderson, working paper; Harvey & Wynn, 2021). Furthermore, the reflection guide presented can be a tool for other experiential coursework or professional development (Greenberger, 2020; Greenberger et al., in press).

Anderson, A. M. (working paper). Reflecting on refugee simulations as experiential learning opportunities to improve empathy and cross-cultural communication. Journal of Scholarly Engagement.
Coker, J. S., Heiser, E., Taylor, L., & Book, C. (2017). Impacts of experiential learning depth and breadth on student outcomes. Journal of Experiential Education, 40(1), 5-23.
Dewey, J. (1938/1991). Experience and education. In J. A. Boydston (Ed.), The later works of John Dewey, 1925-1953, Volume 13: 1938-1939, experience and education, freedom and culture, theory of valuation, and essays (pp. 1-62). Southern Illinois University Press.
Goss, P., & Sonnemann, J. (2017). Engaging students: Creating classrooms that improve learning. Grattan Institute.
Greenberger, S. W. (2020). Creating a guide for reflective practice: applying Dewey's reflective thinking to document faculty scholarly engagement. Reflective Practice, 21(4), 458-472. https://doi.org/10.1080/14623943.2020.1773422
Greenberger, S. W., Maguire, K. R., Martin, C. L., Chavez, T. E. & Delgado, G. (in press). Discovering reflective-narrative: Constructing experience in the Deweyan guide for reflective practice. Reflective Practice. https://doi.org/10.1080/14623943.2021.1983423
Harvey, N. R., & Wynn, S. T. (2021). Simulating the refugee experience to cultivate cultural competence and sensitivity. Journal of Christian Nursing. https://doi.org/10.1097/cnj.0000000000000822.
Kolb, D. A. (1984). Experiential learning: Experience as the source of learning and development. Prentice Hall. http://academic.regis.edu/ed205/Kolb.pdf

Rethinking Active Learning to Promote Student Success

Hildi Nicksic, Texas A&M University
Stacia Miller and Suzanne Lindt, Midwestern State University

Active learning, as the involvement of students in the learning process, is a well-known pedagogical strategy. Moving away from traditional passive learning has the potential to increase student engagement, promote content application and critical thinking, and enhance comprehension. Yet when we apply the "active" part of active learning by incorporating physical activity into the curriculum, students may reap additional benefits. In this practice session, presenters will share and model strategies for implementing movement-based active learning across content areas.

With shifts in classroom platforms to virtual learning and hybrid models, pedagogy that actively engages students in the learning process has become increasingly important. Both interactive learning and movement-based active learning have the potential to support student engagement, promote critical thinking and application of course content, and improve comprehension, retention, and academic achievement. Active learning strategies are linked with increased motivation, interest, and curiosity (Ainley, Hidi, & Berndorff, 2002; Bybee et al., 2006; Fried & Chapman, 2012; Vazou, Gavrilou, Mamalaki, Papanastasiou, & Sioumala, 2012). Furthermore, by rethinking the "active" part of active learning and integrating physical activity into the learning experience, professors offer students the opportunity to increase blood flow and cognitive function (Verburgh, Ks, Scherder, & Oosterlaan, 2013).

In this practice session, presenters will share their journey to rethinking active learning, discuss experiences in their own diverse classrooms, and model activities that can be implemented across content areas and learning environments. Attendees will gain ideas for active engagement, justification for implementation, and support for trying new pedagogical strategies to promote student success.

Ainley, M. D., Hidi, S., Berndorff, D. (2002). Interest, learning and the psychological processes that mediate their relationship. Journal of Educational Psychology, 94, 1-17.

Bybee, R., Taylor, J. A., Gardner, A., Van Scotter, P., Carlson, J., Westbrook, A., & Landes, N. (2006). The BSCS 5E instructional model: Origins and effectiveness. Colorado Springs, CO: BSCS. http://www.fremonths.org/ourpages/auto/2008/5/11/1210522036057/bscs5efullreport2006.pdf

Castelli, D. M., Centeio, E. E., Hwang, J., Barcelona, J. M., Glowacki, E. M., Calvert, H. G., & Nicksic, H. M. (2014). VII. The history of physical activity and academic performance research: Informing the future. Monographs of the Society for Research in Child Development, 79(4), 119-148. https://doi.org/10.1111/mono.12133

Fried, L., & Chapman, E. (2012). An investigation into the capacity of student motivation and emotion regulation strategies to predict engagement and resilience in the middle school classroom. Australian Educational Researcher, 39(3), 295-311.

Vazou, S., Gavrilou, P., Mamalaki, E., Papanastasiou, A., & Sioumala, N. (2012). Does integrating physical activity in the elementary school classroom influence academic motivation? International Journal of Sport and Exercise Psychology, 10(4), 251-263.

Verburgh, L., Konigs, M., Scherder, E., & Oosterlaan, J. (2014). Physical exercise and executive functions in preadolescent children, adolescents and young adults: A meta-analysis. British Journal of Sports Medicine, 48(12), 973-979

Roll-Playing - Incorporating game mechanics into traditional role-play activities

Antonio Ruiz Ezquerro, Florida State University

This session explores role-playing games as powerful pedagogical tools that rely on story-telling and experiential learning to help students understand and retain knowledge. Role-playing can be used in a variety of settings such as a leadership learning class, an RA conflict management workshop, a hazing prevention seminar, a sexual assault bystander intervention program, etc. This workshop will reimagine the traditional approach to role-play activities in educational settings and suggest slight modifications borrowed from tabletop role-playing games to create more engaging, realistic, and educative experiences. The session will consist of a short presentation, an interactive gamified role-play, and a brief discussion.

Role-playing activities are often used in all kinds of training settings because of their ability to put participants in the action (Agboola Sogunro, 2003). In my experience, I have seen role-plays being used at resident adviser trainings, sexual assault prevention programs, first-year orientation workshops, leadership education courses, among other settings. In environments like these, it is not uncommon for facilitators to use a role-playing activity where participants practice a fictional scenario and apply what they have learned. However, one of the primary issues with brief, stand-alone classroom role-playing activities is that they tend to be linear and without long-term consequences. It is my experience that in most cases, participants will arrive at the intended outcome because there is no reason not to. There is a social incentive for learners to cooperate and finish the activity as soon as possible that severely impairs the activity's outcomes. For instance, learners' actions during the role-play tend to be inconsequential for the scenario's development whether they make wise choices or not. Usually, participants will soon reconcile and reach the expected scenario's solution regardless of their actual performance. As a result, the activity's outcome is unrealistic compared to a real-life situation, where high tension moments are expected to occur during a confrontation. This effect could potentially deprive learners of valuable learning opportunities.

However, if we combine the activity with role-playing game mechanics, such as rolling dice to determine the effectiveness of their actions, things will often not go as initially planned by the learner. Participants will have to rely on critical thinking, adapting, and improvising to resolve a situation where the effectiveness of their actions and other participants' reactions are, for the most part, out of their hands. RPGs may provide learners with practice experiences where they can interact with an ever-evolving, responding environment. This setting may lead them to take actions they usually would not explore under a traditional linear role-play, allowing them to generate deeper meaning from the experience after the role-play is over and observe additional practical examples within the scenario's development.

The session will consist of a short presentation, an interactive gamified role-play, and a brief discussion. The presentation will cover the benefits of gamified role-plays and briefly instruct participants on how to gamify their own role-plays regardless of the topic by introducing six tools to design and facilitate any gamified role-play. The role-play will allow participants to play and experience its effects on learning. Lastly, the discussion will provide everyone a space to debrief the session's contents, ask questions, and exchange ideas.

Agboola Sogunro, O. (2004). Efficacy of role-playing pedagogy in training leaders: some reflections. The Journal of Management Development, 23(4), 355-371. https://doi.org/10.1108/02621710410529802

SEP: First Week Interventions

Dave Frantzreb, University of North Carolina at Charlotte

The Student Experience Project (SEP) is a collaboration of university leaders, faculty, researchers and national education organizations committed to innovative, research-based practices in the classroom across 6 urban serving universities. Over the past two-years, we have expanded interventions across STEM and non-STEM classrooms to remove stereotype threats by attuning faculty messaging that signal a growth mindset and a sense of belonging through a continuous improvement mode. This session will give an overview of research, examples of faculty interventions, and the use of CoPilot-Ascend as the survey tool used in the SEP project at the University of North Carolina at Charlotte.

The SEP project at Charlotte aims to improve the student experience by creating learning environments that are designed to promote a sense of belonging and support student learning. Research has shown that students are more likely to be successful in the class and persist throughout college when negative structural and identity cues are removed from the classroom experiences (Murphy & Destin, 2016; Steele, 1997; Walton et al., 2015). The goal of this interactive presentation is to illustrate how small changes from the instructional side can increase student engagement and overall sense of belonging in a class and major. With many of the conversations around diversity, equity, and inclusion, this project is able to give faculty actionable tools, resources, and data to improve equity gaps for structurally disadvantaged students based on race/ethnicity, gender, and financial needs by helping to remove barriers.

The first 15 minutes will be used to briefly cover the research and theories behind the five core concepts addressed in the faculty training and development: identity safety, institutional growth mindset, self-efficacy, social belonging, and trust and fairness. The next 15 minutes will be used to explore examples of faculty group work and activities used in preparing interventions for their classrooms. For example, a brief syllabus workshop looking at examples of fixed vs growth mindset messaging, and other examples with exclusionary or negative stereotype cues that impact marganziled students. Other activities will focus on creating wise feedback statements, the use of belonging stories, and course policies and procedures.

To illustrate the continuous improvement model, the next ten minutes will be an overview of the survey instrument created by PERTS, and how to use the data to make changes to improve the student experience in the class. There will also be examples of data reports from STEM courses from the 2020-21 school year. These reports will highlight struggles within classrooms and examples of interventions faculty used throughout their courses.

Murphy, M.C. & Destin, M. (2016). Promoting Inclusion and Identity Safety to Support College Success. Report prepared for The Century Foundation College Completion Series.

Steele, C. M. (1997). A threat in the air: How stereotypes shape intellectual identity and academic performance. American Psychologist. V52(6).

Walton, G. M., Logel, C., Peach, J., Spencer, S, & Zanna, M. P. (2015). Two brief interventions to mitigate a "chilly" climate transform women's experience, relationships, and achievement in engineering. Journal of Educational Psychology, 107, 468-485.

Strategies to Create Safe and Supportive Experiential Learning Environments

Alicia Johnson, Amy Arnold, *Virginia Tech*

Experiential education is an instructional methodology that bridges theory and practice with the goal of providing students authentic opportunities to gain knowledge and experience simultaneously. Experiential learning (EL) can be defined as "as a sense-making process of active engagement between the inner world of the person and the outer world of the environment" (Beard & Wilson, 2013, p. 4). When creating EL opportunities, it is important that the learning space is both authentic and supportive for the student. In this session, we will discuss strategies to create safe and supportive authentic learning environments for both graduate and undergraduate students.

Experiential learning is not new, however, the realities of a changing economy with shifting demands of the workplace suggests that students will require not just new knowledge, but also new experiences (AMA, 2010; CED, 2021; Hart and Associates, 2013). In addition to traditional students, learning institutions are attracting more non-traditional learners (those already in a career) (Remenick, 2019). Because of these developments, a need exists for educational methods that translate the abstract ideas of academia into the concrete practical realities of students' current and future lives (Kolb, 2015) and make learning more meaningful (Lewis & Williams, 1994).

As witnessed through the lense of recent downturns (due to recessions, pandemics, etc.), non-traditional learners will seek training and possibly formal education in order to reskill for the changing labor market (Arnold & Rikakis, 2020). Institutions of higher education can facilitate connections between students' prior experience and new knowledge, offering relevance and practical experience not only as a tool to reach their personal and academic goals, but also as a springboard to reaching their professional goals, through implementation of EL opportunities (Lewis & Williams, 1994; Kolb, 2015).

While the reasons for using EL are strong, the realities of creating such an environment can be daunting for both faculty and students new to the process (Austin & Rust, 2015). Many students in undergraduate and graduate programs are new to this type of learning approach and often find it difficult to adjust (Eckstein, Bergin, & Sharp, 2002; Jonassen, 2011).

Experiential approaches are believed to enable learners to better develop the skills employers seek (Lewis & Williams, 1994). One example of a need for EL is identified in Porath and Pearson's (2010) research on workplace behavior; they cite incivility as one of today's most costly behaviors for American businesses. "Civility is a lubricant that fosters good teamwork. In teams where mutual respect is the norm, members feel comfortable sharing information and ideas, collaborate more creatively, and grow - individually and collectively. When incivility occurs, cooperation plummets, enthusiasm wanes, and stress skyrockets" (p. 66). This session is designed to help prepare faculty (and students) for creating learning environments that foster the consideration of multiple viewpoints, increase mastery, increase self regulation and develop methods for collaborative reflection in addition to other strategies (Jonassen, 2011; Thomas, 2000).

In this session, presenters will share strategies they use in facilitating experiential learning experiences for both undergraduate and graduate level students. Strategies come from experiential learning, instructional design, and educational psychology literature and personal experiences as teachers in experiential learning courses. Presenters will facilitate discussion among participants about their own experiences with EL or their desire to engage students in EL experiences. The presenters will use similar strategies to encourage attendees to actively engage in collaboration with colleagues to discover meaningful ways of incorporating these strategies into their courses. Participants will leave the session with resources for further research into creating EL experiences as well as strategies to use to create supportive spaces that encourage active learning, collaboration, and reflection.

American Management Association. (2019, January 24). AMA Critical Skills Survey: Workers Need Higher Level Skills to Succeed in the 21st Century. https://www.amanet.org/articles/ama-critical-skills-survey-workers-need-higher-level-skills-to-succeed-in-the-21st-century/.

Arnold, A.J. & Riakakis, T. (2020). The Integrative Professional and Personal Development Model (IPPD) and 21st Century Knowledge. In T. Rikakis, J. Keyel, & A. Arnold (Eds.) Adaptive life-long learning for an inclusive knowledge economy. VTech Works.

Austin, M. J. & Rust, D. Z. (2015). Developing an experiential learning program: Milestones and challenges. International Journal of Teaching and Learning in Higher Education, 27(1), 143-153.
Beard, C., & Wilson, J. P. (2013). Chapter 01: Unlocking powerful learning - a new model (Third edition ed.). Kogan Page Ltd.
Committee for Economic Development of The Conference Board (CED) (2021, April). A US workforce training plan for the postpandemic economy. https://www.ced.org/solutions-briefs/a-us-workforce-training-plan-for-the-postpandemic-economy
Eckstein, J., Bergin, J., & Sharp, H. (2002). Patterns for Active Learning. In Proceedings of the 9th Conference on Pattern Language of Programs. Monticello, IL.
Hart Research Associates. (2013). It takes more than a major: Employer priorities for college learning and student success. Association of American Colleges & Universities. https://www.aacu.org/publications-research/periodicals/it-takes-more-major-employer-priorities-college-learning-and
Jonassen, D. (2011). Supporting Problem Solving in PBL. Interdisciplinary Journal of Problem-Based Learning, 5(2) 95-112. https://doi.org/10.7771/1541-5015.1256
Kolb, D. A. (2015). Experiential learning: Experience as the source of learning and development (Second). Pearson Education LTD. https://learning.oreilly.com/library/view/experiential-learning-experience
Kolb, A. Y. & Kolb, D. A. (2017). The experiential educator:Principles and practices of experiential learning. EBLS Press.
Lewis, L. H., & Williams, C. J. (1994). Experiential learning: Past and present. New directions for adult and continuing education, 1994(62), 5-16.
National Science Foundation. (2010, September 15). Preparing the next generation of STEM innovators: Identifying and developing our nation's human capital. National Science Foundation. https://www.nsf.gov/news/news_summ.jsp?cntn_id=117713.
Porath, C. & Pearson, C. M. (2010). The Cost of Bad Behavior, Organizational Dynamics, 39(1), 64-71. https://doi.org/10.1016/j.orgdyn.2009.10.006.
Remenick, L. (2019). Services and support for nontraditional students in higher education: A historical literature review. Journal of Adult and Continuing Education, 25(1), 113-130. https://doi.org/10.1177/1477971419842880
Thomas, J. W. (2000). A review of research on project-based learning. The Autodesk Foundation.

Strategies to Promote Engagement and Learning in Lecture

Bonnie Brenseke, James Powers, Campbell University

Although lecture, or large group teaching, is an efficient means of knowledge transfer, it tends to encourage disengagement and passive learning. Students receive information but generally have little incentive or opportunity to utilize the time in lecture to integrate and apply the material. Strategies discussed in this session include getting your bearings, getting students' attention, and getting your students to learn in lecture "while their seats are in the seats". By the end of this session, participants will have acquired strategies to keep a large group engaged and to maximize learning during lecture.

Problem: Although lecture, or large group teaching, is an efficient means of knowledge transfer, it tends to encourage disengagement and passive learning. Students receive information but have little incentive or opportunity to utilize the time in lecture to integrate and apply the material. Lack of student engagement with course content reduces class participation and increases student anonymity causing some students to respond by becoming passive, apathetic, or potentially disruptive. Large group teaching is and will continue to be a fixture in higher education. Educators must face the daunting challenge of developing and delivering an effective lecture.

Solution: Providing educators with strategies to promote student engagement and learning in lecture will increase the effectiveness of large group teaching.

Strategies:

- Getting your bearings
- Determine where your lecture fits within the course and the curriculum.
- Getting students' attention
- Connect with students and draw them into lecture
- Getting your students to learn in lecture
- Give students time and opportunities, during lecture, to integrate and apply the material
- Getting rid of non-essential information
- Avoid overloading students with too much information in too short of a time

Approach: The session walks participants through strategies to promote student engagement and learning in lecture. Strategies are based on existing literature and personal experiences of the presenters, who are both seasoned educators. Specific examples are provided throughout the session such as the use of hyperlinks as a means of reducing content covered during valuable class time. The nature and design of the session exemplifies the practice of student engagement and getting students to learn in lecture. Presenters, via the act of presenting the session and through specific examples, demonstrate the strategies to engage the audience.

Bligh, D. A. (1998). What's the use of lectures?. Intellect books.

Cantillon, P. (2003). Teaching large groups. BMJ, 326(7386), 437.

Gooding, H. C., Mann, K., & Armstrong, E. (2017). Twelve tips for applying the science of learning to health professions education. Medical Teacher, 39(1), 26-31.

Jeffries, W. B. (2014). Teaching large groups. In An introduction to medical teaching (pp. 11-26). Springer, Dordrecht.

Khandelwal, K. A. (2009). Effective teaching behaviors in the college classroom: a critical incident technique from students' perspective. International Journal of Teaching and Learning in Higher Education, 21(3), 299-309.

Lynch, R. P., & Pappas, E. (2017). A model for teaching large classes: facilitating a" small class feel". International Journal of Higher Education, 6(2), 199-212.

Reis, R. (2005). How to create memorable lectures. Stanford University Newsletter14 (1). Center for Teaching and Learning (CTL). Retrieved from https://tomprof.stanford.edu/posting/790.

Structuring, Supporting and Grading Student Reflection: Lessons from the Literature

Bridget Arend, Metropolitan State University of Denver

Reflection is a valuable method for engaging students in deeper learning, especially with active and inquiry-based teaching approaches. The sudden rise of online and hybrid learning has created even more need to make the thinking process visible. Yet student reflection can be messy, subjective, and elicit resistance. How do we best structure and scaffold reflection? What type of feedback is best and how often should we use reflection? And how can we possibly evaluate the reflective process? In this session, we explore the emerging literature about structuring, supporting, and assessing student reflection, discussing both cautions and proposed best practice.

Student reflection on learning is a desired goal for faculty members in higher education. Instructors in nearly all disciplines want their students to develop intentional practices (Kaplan, Silver, Lavaque-Manty & Miezlish, 2013), become reflective practitioners (Sch1983) and draw out deeper learning from their courses. Reflection can be defined as a form of mental processing about a complicated or ill-structured idea that occurs with a purpose or anticipated outcome (Moon, 2013). Especially as higher education moves towards more experiential and active learning methods, and given ongoing distanced and disrupted circumstances, instructors rely on student reflection to bring forth deeper learning, to reinforce and formalize ideas, and also act as a marker that learning has occurred.

Yet student reflection can be messy, subjective, and elicit resistance. Instructors in all disciplines are left asking questions about how to best use reflection for learning. How do we structure and scaffold reflection with our students? How often should we use reflection? Which prompts and what type of feedback is best? And how can we possibly evaluate and grade the reflective process?

Reflection can be a very personal process, containing great variety not only in terms of format and structure, but also regarding the type of learning that is occurring, and how much students trust the process to openly share their thoughts. We want students to engage in deep and reflective learning, and many scholars argue that critical reflection does not necessarily happen without intentional scaffolding, probing and effective facilitation (Davis & Arend, 2006). Much of the literature about reflection is found in specific disciplinary contexts or in highly-theoretical form. Yet there are many broad lessons we can pull from the scholarly literature to inform our practice.

In this session, we will explore the emerging literature about structuring, supporting, and assessing student reflection, sharing frameworks and discussing cautions and proposed best practice. Literature from educational theorists, Scholarship of Teaching and Learning (SoTL) studies, and best practice ideas across disciplines will be explored to help faculty understand the complexity and utilize the most effective methods.

The session will be structured with time for discussion and individual reflection. The overall structure will attempt to mirror the "what?, so what?, now what?" approach often used in reflective practice to move participants from a current state to a preferred state of thinking (Sch1983). An opening reflection prompt will target current challenges (what?), the reflective questions embedded within the presentation will ask participants to compare their current practices to best practice cited in the literature (so what?) and the final reflective prompt will seek to provide ideas and strategies for the future (now what?). Participants will also be asked to discuss additional challenges, ideas, and promising practices.

Following this session, participants will be able to:

- Describe the role of reflection in learning
- Explain major tensions related to structuring, supporting, and assessing reflection
- Analyze their own reflection practices in relation to emerging best practice from the literature
- Identify a number of ideas and practices to adopt in the future

Davis, J. R., & Arend, B. D. (2012). Facilitating seven ways of learning: A resource for more purposeful, effective, and enjoyable college teaching. Virginia: Stylus.

Kaplan, M., Silver, N., Lavaque-Manty, D., & Miezlish, D. (2013). Using reflection and metacognition to improve student learning; across the disciplines, across the academy. Portland: Ringgold Inc.

Moon, J. A. (2013). Reflection in learning and professional development: Theory and practice. Routledge.
SchD. (1983). The Reflective Practitioner: How professionals think in action. Basic Books.

SuperStudio: An approach for developing transdisciplinary, problem-focused, thematic courses

Stephanie Lewis, Anne-Lise Velez, Najla Mouchrek, Ralph Hall, Zackary Underwood, Daron Williams,
Virginia Tech

The presenters will briefly describe their peer-reviewed course development framework for a four-credit, thematic, studio-like course for topic-based sections offered in parallel. Each section requires students to investigate an instructor-defined area of inquiry and apply their learning through a learner-developed group project that fits within an established common theme for the different sections. This workshop would be beneficial for instructors and faculty interested in approaches to developing transdisciplinary courses or approaches to team/collaborative teaching. Participants will engage in a thought exercise to practice the presented approach and develop a hypothetical transdisciplinary course as a basis for future course development.

Collaborative teaching of transdisciplinary topics is counterintuitive to the siloed and highly structured nature of instruction within discipline-specific university courses (Bergmann et al., 2012). Navigating spaces dedicated to specialized disciplinary intellectual spaces is often taught in higher education but hiring managers and talent recruiters have indicated they want to see new hires with transferrable, competency-based skills outside of their selected disciplines (Hart Research Associates, 2018). A transdisciplinary classroom space provides a minimal risk, high reward environment for developing transferable skills like teamwork, multimodal communication, ethical decision making, critical thinking, and inclusion (Barrett et al., 2019). This type of learning environment can further benefit from a collective of instructors from different disciplines who can bring together various perspectives and show students where the boundaries between disciplines are blurred while modeling collaborative behavior for students.

The Virginia Tech Honors-Urban Affairs & Planning SuperStudio is a transdisciplinary topic-based studio in which five concurrent three-credit courses and a co-requisite one-credit context framing course are collaboratively taught by a team of content-expert faculty. Current SuperStudio faculty members have expertise in computational biology, public administration, policy, engineering, and learning technologies. Students enrolled in the course are from diverse disciplines, and explore societal challenges through learning collaboration, problem framing and solving, and decision-making processes. Development of this course was heavily influenced by research suggesting desirable skill sets for recent graduates pursuing entry-level positions (Hart Research Associates, 2018; Selingo, 2019; Berman and West, 2008), and pedagogical theory on problem-based learning (McLaughlin and Lodge, 2019, p.3).

SuperStudio students are introduced to important concepts specific to the topic section in which they are enrolled, interact with students in each of the other sections through joint conversation between pairs of sections, and form multidisciplinary teams to understand, evaluate, and propose solutions for a specific problem associated with a complex, global issue. To date, students have explored various aspects of the Green New Deal, which includes considering several international versions of similar initiatives. The course is designed for third year and fourth/fifth-year students and works exceptionally well as a capstone experience for some of the university's public affairs degrees. Students who have completed the course report learning outcomes that exceed those proposed by the instructors. Anecdotally, students report an appreciation for the role of diverse thoughts about and approaches for accomplishing a goal, and improved understanding of the conceptual limitations they inadvertently placed on problems they feel motivated to solve as professionals entering the workforce.

In this workshop, instructors and faculty interested in developing transdisciplinary courses and collaborative teaching will practice this approach to course development. Key considerations for development of this course type include beginning the planning months in advance, building an instruction team with diverse disciplinary expertise, implementing recurring meetings for the instruction team before and throughout the semester, and clearly establishing expectations for students up front with repetition of these goals verbally and through a well-structured course management system. Participants will leave the workshop with a planning guide worksheet and draft course agenda for a transdisciplinary, project-based course.

Barrett, M. J., Alphonsus, K. B., Harmin, M., Epp, T., Hoessler, C., McIntyre, D., ... & Singh, B. (2019). Learning for transdisciplinary leadership: why skilled scholars coming together is not enough. BioScience, 69(9), 736-745.

Bergmann, M., Jahn, T., Knobloch, T., et al. (2012). Chapter I: The Integrative Approach in Transdisciplinary Research. In Methods for Transdisciplinary Research (pp. 22-49). Campus Verlag.
Berman, E. M., & West, J. P. (2008). Managing emotional intelligence in US cities: A study of social skills among public managers. Public Administration Review, 68(4), 742-758.
Hart Research Associates. (2018, July). Fulfilling the American Dream: Liberal Education and the Future of Work; Selected Findings from Online Surveys of Business Executives and Hiring Managers. Association of American Colleges and Universities.
McLaughlan, R., & Lodge, J. M. (2019). Facilitating epistemic fluency through design thinking: a strategy for the broader application of studio pedagogy within higher education. Teaching in Higher Education, 24(1), 81-97.
Selingo, J. (2019) Part 1: The changing workplace and the dual threats of automation and the gig economy. In The Future of Work and What it Means for Higher Education: A Three-part Series. Workday, Pleasanton, CA.

Supporting Immigrant Students Achieving Academic Success

Timothy Cedor, Dallas College

This program will look at the needs immigrant students bring to the classroom and how professors can use things like cultural capital to help these students adjust to college life and achieve academic success. The presentation will also include 10 best practices educators can immediately use in their classrooms to help students. While geared towards the immigrant student, much of the information in the program applies to the needs of first-generation students as well.

Objectives: This session is designed to help professors meet the needs of immigrant students inside their classroom.
Session Agenda: Content will be delivered through lecture, table talks, and group Q&As.
30 minute--presentation
10 minute--table discussion about how what was learned can be used on your campus
10 minute--large group Q&A to address questions from the presentation or issues that arose during table discussions

Time: 50 minutes

Practical Application: Participants will be able to implement what they learned to identify the unique and varied situations immigrant students bring to the classroom. The presentation will identify some of the barriers to success immigrant students enter the classroom with and leave with 10 strategies that can be used to overcome these barriers. I have applied to lead this presentation for the first-time during return week at my college in August 2021. I am looking forward to that experience and feel it will leave me with enough time to refine it and make it even better for your conference.

Tools/Resources: I plan to make my presentation available to all attendees after the presentation and give them my contact information so they can stay in contact with me after and share their experiences in implementing this information.

Presenter Experience:

- Eastfield ELL Series: Toward Racial Healing September-November 2021: Seminar style course for Dallas College professional development where I guided students through The Racial Healing Handbook: A Guide to Challenge Privilege, Confront Systemic Racism, and Engage in Collective Healing.
- Eastfield CETL Workshop February 27, 2020: Interview Workshop for Math and English Adjuncts Considering the Transition to Full-Time.
- ECHS Invitation Speaker Series September 27, 2019 and November 15, 2019: Whose Time is it Anyway? Manage Your Time. Manage Your Life.
- Eastfield Breakout Division Meeting August 20, 2019: Tips for Having a Culturally Responsive Classroom this Year.
- Eastfield Professional Development Day February 28, 2019: Understanding the Developmental Student and Tips for Success in Corequisite Classes.

Teaching with Compassion: A Foundational Approach to Connecting with Students

Keith Howard, North Carolina State University

A crucial, but often overlooked element of teaching, is creating a learning environment that facilitates student belonging, self-confidence, and a belief that the instructor cares about each student. Recent events and shifts to online learning have heightened the stress and anxiety felt by many students, and as a result, understanding the psychosocial and academic needs of students has never been more important. The aim of this discussion is to share ideas about communication practices and teaching methods that will help faculty connect with students, make classroom interactions more meaningful, and create an atmosphere where students know they can achieve success.

The primary role of a college instructor is to provide students with the knowledge and technical skills needed to complete their degree and move on to successful careers in their chosen field. A key aspect of teaching that is often overlooked, however, is the ability to create a teaching and learning environment that facilitates student self-efficacy, a sense of belonging, and the belief that the instructor has the student's best interest in mind (see Gillen-O'Neel, 2019; Glass et al., 2015; Komarraju et al., 2010; O'Keeffe, 2013). Unfortunately, many students struggle with the social, psychological, and academic demands of college, especially in the first year (American College Health Association, 2019).

According to recent data from the American College Health Association, 31% of undergraduate students experienced enough anxiety in the previous year to negatively affect their performance in a class, 21% reported levels of depression so significant that it had an adverse effect on daily activities, 52% indicated that academics had been very difficult to handle at some point within the previous year, and nearly 51% experienced higher than normal levels of stress. Not surprisingly, recent events and shifts to online teaching only compounded the psychosocial stress and anxiety experienced by many students (Hoyt et al., 2021; Mushquash & Grassia, 2020), thus highlighting the importance of positive faculty-student interactions and the need for professors to be cognizant of the social, emotional, and academic demands placed on students.

The primary aim of the proposed discussion session is to emphasize the importance of structuring courses in a way that is student-centered, welcoming, and compassionate, while maintaining the rigor and teaching standards expected in a university environment. Several key strategies will be introduced to generate active discussion among participants.

<u>The key concepts to be discussed are listed here:</u>

- Get to know your students.
- Let students see your human side.
- Allow students to take advantage of their creativity.
- Incorporate second-chance opportunities.
- Check on the mental health of your students.
- Use a variety of teaching strategies.
- Make it a priority to get all students involved.
- Find multiple ways to communicate messages and information.

I will introduce these strategies in the first ten to twelve minutes, and I will briefly explain why each strategy matters to make sure that participants understand the objectives of the small-group discussions to follow. In the discussion groups, I will ask participants to focus on ideas that contribute to accomplishing the desired outcomes of strategies presented. Approximately fifteen minutes will be set aside for group discussions to give participants the opportunity to share examples of best practices, favorite assignments, and past successes. After this small-group session, I will shift the discussion back to the larger group and allow participants to share what they discussed. To conclude the session, I will briefly review key concepts and reveal a list of example strategies from the teaching and learning literature. I anticipate that many of these examples will reflect the ideas and concepts shared by participants.

American College Health Association. (2021). National College Health Assessment. https://www.acha.org/ACHA/Resources/Survey_Data/NCHA/NCHA/Data/Publications_and_Reports.aspx?hkey=42461a35-897f-4644-bde7-f2410d487ca5

Gillen-O'Neel, C. (2019). Sense of belonging and student engagement: A daily study of first-and continuing-generation college students. Research in Higher Education, 1-27.

Glass, C. R., Kociolek, E., Wongtrirat, R., Lynch, R. J., & Cong, S. (2015). Uneven Experiences: The Impact of Student-Faculty Interactions on International Students' Sense of Belonging. Journal of International Students, 5(4), 353-367.

Hoyt, L. T., Cohen, A. K., Dull, B., Castro, E. M., & Yazdani, N. (2021). "Constant stress has become the new normal": Stress and anxiety inequalities among US College students in the time of Covid-19. Journal of Adolescent Health, 68(2), 270-276.

Komarraju, M., Musulkin, S., & Bhattacharya, G. (2010). Role of Student-Faculty Interactions in Developing College Students' Academic Self-Concept, Motivation, and Achievement. Journal of College Student Development, 51(3), 332-342.

Mushquash, A. R., & Grassia, E. (2020). Coping during COVID-19: Examining student stress and depressive symptoms. Journal of American College Health, 1-4.

O'Keeffe, P. (2013). A sense of belonging: Improving student retention. College Student Journal, 47(4), 605-613.

The lecture is not dead: using storytelling to enhance lectures

Kristin Phillips, Virginia Tech

The push for active learning has left many feeling as though the lecture is an outdated and ineffective tool. However, lecturing can be an essential tool for delivering foundational content. When done well, lectures can create an environment for active learning and facilitate deep learning. Storytelling, or narrative pedagogy, is one tool to effectively engaged students during lecture. Humans are wired for stories. When used in the classroom, stories can help students make connections between concepts and make sense of their meaning. This practice session will explore how to effectively incorporate storytelling into your own lecture.

The push for active learning has left many feeling as though the lecture is an outdated and ineffective tool. However, lecturing can be an essential tool for delivering foundational content. When done well, lectures can create an environment for active learning and facilitate deep learning (1). Storytelling, or narrative pedagogy, is one tool to effectively engaged students during lecture. Humans are wired for stories. When used in the classroom, stories can help students make connections between concepts and make sense of their meaning. This practice session will explore how to effectively incorporate storytelling into your own lecture.

The use of lecture in higher education has been synonymous with boring and outdated. The focus in pedagogy has shifted to student-centered learning, flipped classrooms, and experiential learning. The push for active learning has left many feeling as though the lecture is an ineffective tool for teaching. However, students need foundational knowledge in order to direct their own learning, engage with higher order thinking, and make sense of their experiences. Lecturing is an efficient way of presenting content that students can apply. So, the question becomes - how do you make it effective?

Storytelling is an effective tool to capture students' attention and help them make sense of disconnected concepts. Humans are, by nature, storytellers (2) and our brains are wired to respond to stories. Stories help us make sense of our experiences. In narrative storytelling, the storyteller connects seemingly disparate or impersonal facts in a manner that helps make sense of a complex topic. They are increasingly used by experts to communicate with non-experts in policy domains and are a common tool in marketing. Thus, the classroom of non-expert learners is a natural place to weave in this pedagogical tool to improve the lecture.

Storytelling engages one's emotional thinking and highlights personal relevance. Personal relevance and emotional connection affect attention (3), processing (4), and memory (5), and have been linked to enhanced learning (6). Storytelling looks different in various disciplines, but it shares the common theme of bringing content to life.

In this practice session, I will describe how and why I changed my lecture style and will give examples of storytelling in my own classrooms. I will explain how the brain reacts to stories and provide evidence to support their utility to enhance learning. I will engage the audience in discussion periodically and ask members to consider possible stories in their own disciplines.

Williams PD. (2015) Storytelling in lectures: how a narrative pedagogy can create meaning for students in large group settings. In C Klopper and S Drew (Eds.) Teaching for Learning and Learning for Teaching: Peer review of teaching in higher education. (Vol 19, pp 189-208). Sense Publishers. https://link.springer.com/content/pdf/10.1007%2F978-94-6300-289-9.pdf

Bruner, J., 1987. Life as narrative. Social Research, 54, 11-32.

Vuilleumier P (2005). How brains beware: neural mechanisms of emotional attention. Trends Cogn Sci 9(12):585-94.

Glaser M, Garsoffky B, Schwan S (2009). Narrative-based learning: possible benefits and problems. Communications 34:429-447

Phelps EA (2004). Human emotion and memory: interactions of the amygdala and hippocampal complex. Curr Opin Neurobio; 14(2):198-202

Seli P, Wammes JD, Risko EF, Smilek D (2016). On the relation between motivation and retention in educational contexts: The role of intentional and unintentional mind wandering. Psychon Bull Rev. 23(4):1280-7.

The Secret to More Enjoyable Grading?

Sarah Marrs, Virginia Commonwealth University

This practice session will demonstrate the magic of using Kaltura Capture to give class-wide, detailed feedback on student assignments. Participants should brace themselves for a statistics refresher that will demonstrate the power of using this tool for grading. Not only does it allow us to give better and more feedback to the entire class but it doubles as a way to reinforce concepts we cover in the classroom. Bonus points: grading takes far less time and it, dare I say, enjoyable! We will close with sharing the student perspective and then engage in open discussion.

Feedback has long been recognized as a pivotal factor in the learning process (Agius & Wilkinson, 2013; Carless, 2006; Nicol & Macfarlane-Dick, 2006; Orell, 2006; Rowe, 2011) and as having a critical role in the process of understanding (Agius & Wilkinson, 2013; Orell, 2006; Rowe, 2011). Not only is it a tool for guiding students towards learning targets, but feedback also serves as a form of academic interaction and encouragement (Rowe, 2011). Feedback has also been shown to regulate emotions, reduce anxiety, and show students that the person giving them feedback cares for and respects them, thus "affecting the students' general wellbeing" (Rowe, 2011, p. 356). This can be particularly important when students are learning challenging or intimidating material, such as statistics or other research methodologies. However, as instructors, giving effective feedback is incredibly cumbersome and, for many, can feel redundant. Often, we find ourselves giving the same feedback repeatedly across multiple submissions or even across multiple assignments for the same student. Yet, and particularly in methods courses, we know that students need opportunities to engage in and reflect on those methods to garner expertise (Lewthwaite & Nind, 2016), a process for which repeated feedback from the instructor is critical. Moreover, that constant feedback might help alleviate methods anxiety that sometimes stands in the way of student success in these types of classes (Bernstein & Allen, 2013).

While there may be recommendations on how to engage with students (e.g., Bernstein & Allen, 2013; Lewthwaite & Nind, 2016), there are few tangible examples of what this looks like in the classroom. This practice session will demonstrate the use of Kaltura Capture to give class-wide, detailed, and engaging feedback to students enrolled in a doctoral level statistics course. First, Kaltura and its features and use will be introduced. Second, I will describe the process I use in my course, which culminates in posting a Kaltura video to our course Canvas site. Third, I will show the video to the audience as if they are students, so they can see firsthand what students see. Lastly, I will then walk through my process for following up with each student individually after posting the feedback video. While the focus of the main demonstration will be on material covered in a traditional statistics course, examples will be provided to translate this practice to other courses, both methodology-focused and not. Kaltura will be highlighted as a tool not only for giving better feedback to an entire class more effectively and efficiently, but also as a way to reinforce concepts covered in the classroom. Feedback received from students on this grading practice will be shared. The session will close with an open discussion where participants will be encouraged to give feedback on the practice as well as share their own practices.

Agius, N. M., & Wilkinson, A. (2013). Students' and teachers' views of written feedback at undergraduate level: A literature review. Nurse Education Today, 34(4), 552-559.

Bernstein, J. L., & Allen, B. T. (2013). Overcoming methods anxiety: Qualitative first, quantitative next, frequent feedback along the way. Journal of Political Science Education, 9(1), 1-15.

Carless, D. (2006). Differing perceptions in the feedback process. Studies in Higher Education, 31(2), 219-233.

Lewthwaite, S., & Nind, M. (2016) Teaching research methods in the social sciences: Expert perspectives on pedagogy and practice. British Journal of Educational Studies, 64(4), 413-430.

Nicol, D. J., & Macfarlane-Dick, D. (2006). Formative assessment and self-regulated learning: A model and seven principles of good feedback practice. Studies in Higher Education, 31(2), 199-218.

Orell, J. (2006). Feedback on learning achievement: Rhetoric and reality. Teaching in Higher Education, 11(4), 441-456.

Rowe, A. (2011). The personal dimension in teaching: Why students value feedback. International Journal of Educational Management, 25(4), 343-360.

Transformative Conversations: Ungrading Strategies to Support Classroom Equity and Transparency

Emily Brier, Western Carolina University
Maggie Fernandes, Virginia Tech

In this practice session, we draw on our experiences as writing instructors who have employed ungrading and labor contract-based assessment in our classrooms to offer practical ungrading strategies to promote equity and transparency in assessment. This multimodal, interactive workshop invites participants to discuss and reflect on assessment approaches, create shared understandings of instructors' and students' perceptions of assessment strategies, and leave empowered with ungrading strategies for assessment at any level.

In this practice session, we draw on our experiences as writing instructors who have employed ungrading and labor contract-based assessment in our classrooms to offer practical ungrading strategies to promote equity and transparency in assessment. From our experience, we believe implementing equitable assessment practices takes more than adoption of new systems onto an existing value set about teaching, learning, and grading; rather, an examination of current ideas about assessment models, and an honest assessment of these values, must be undertaken in order to dismantle internalized models of oppressive, ranking-based grading systems in the higher education classroom.

This session will ask participants to discuss and reflect on the ways in which institutional assumptions about traditional assessment practices are often at odds with programmatic learning outcomes and efforts to support student engagement and learning and social justice as a responsibility of the university. Blum et. al's 2020 book has brought ungrading to the fore of assessment discourse. However, many such strategies have been proposed over the past fifty years (see Inoue, Inman and Powell, Bower and Thomas, and Stommel). Ranked, points-based grading reinforces white supremacy, classism, and the status quo of oppression, and instructors must interrupt these systems as we work toward equitable and sustainable futures. As such, we root this practice session in ongoing conversations radically reimagining the future of higher education (see Warner (2020) and Meyerhoff (2019)), and believe part of that radical reimagining must include confronting and shifting the existing grade paradigm. We aim to show how many instructors already deploy some ungrading strategies and to offer suggestions for how instructors can contextualize these types of assessment for students by having class conversations about assessment perceptions and purposes to promote the goals of classroom transparency, equity, and social justice.

To facilitate this multi-disciplinary conversation about assessment, we will use interactive and multimodal approaches to facilitate engaging small-group discussion and reflection on different existing modes of assessment to explore various assumptions and experiences about grading from the perspectives of both instructors and students. In doing so, we will model similar conversations and communication practices that each of us deploys in our introduction of nonnormative assessment systems to our students. Rooting our discussion in recent literature on equitable assessment strategies, and taking a feminist, queer, anti-racist lens to the university classroom, particpants will interrogate what their current modes of assessment "say" to students, as well as their own perceptions of different assessment models. Participants will leave this session with handouts and worksheets which have prompted them to examine these underlying assumptions about assessments, and will gather ideas from their peers on how they might institute ungrading practices into their classrooms, regardless of field or level.

We hope to spark a greater understanding of participants' perceptions of both traditional and ungrading assessment techniques. Participants will leave this session with a more coherent understanding of their current and possible future assessment strategies, and will leave with an understanding of ungrading rooted in up-to-date research and their own positionality.

Blum, S. (Ed.) (2020). Ungrading: Why rating students undermines learning (and what to do instead). West Virginia University Press.

Bower, J., & Thomas, P.L. (Eds.) (2013). De-testing and de-grading schools: Authentic alternatives to accountability and standardization. Peter Lang, New York.

Freire, P. (2007). Pedagogy of the oppressed. New York: Continuum.

Inman, J. O., & Powell, R. A. (2018). "In the absence of grades: Dissonance and desire in course-contract classrooms." College Composition and Communication, 70(1), 30-56

Inoue, A. B. (2015). Antiracist writing assessment ecologies: Teaching and assessing writing for a socially just future. Parlor Press.
Meyerhoff, E. (2019). Beyond education: Radical studying for another world. University of Minnesota Press.
Stommel, J. (2021). Ungrading: An introduction. Retrieved September 30, 2021, from https://www.jessestommel.com/ungrading-an-introduction/.
Warner, J. (2020). Sustainable, Resilient, Free: The Future of Public Higher Education. Belt Publishing.

Using Fishbowl Discussions to Teach Peer Educators WISE Session Structure

Amber Smith, Virginia Tech

Participants in this session will complete a structured fishbowl discussion activity that can be used to train peer educators or other learning assistance professionals on conducting successful sessions according to the WISE model. Participants will learn about the WISE session structure, the benefits and applications of fishbowl discussions, and they will experience the training activity in small groups. Materials will be provided so that participants can conduct this training with their own peer educators.

This session will introduce participants to the WISE session structure for tutoring or coaching sessions as well as a structured fishbowl discussion activity that can be used to train peer educators or other learning assistance professionals on conducting successful sessions.

The WISE Model was coined by Oregon State University's Academic Success Center as a simplified version of McDonald's 12-step Tutor Cycle. The letters in WISE refer to four main parts of a tutoring session: Welcome, Identify Goals & Approach, Support their Learning, and End with Purpose.

This model benefits students because it encourages active, collaborative learning; stronger retention of material; and ideally skill transfer and development so that students can increase their confidence and ability to be independent learners. It benefits peer educators by providing a memorable, flexible way to increase the effectiveness of their sessions by establishing clear expectations and enabling the student to practice and confront challenges in a supportive environment. And finally, it benefits learning assistance programs by creating a more consistent experience for students.

Though WISE makes peer education sessions seem straightforward, there are several objectives within each phase that can be more challenging for new peer educators to remember. To help peer tutors and coaches learn the phases and gain confidence in using them, we designed a training activity to facilitate structured practice of each phase, which I would explain and then conduct during this practice session.

We decided to use a variation of fishbowl discussions in which pairs of students would role play different parts of the WISE session structure while others watched and then discussed how each phase's objectives were met. We chose fishbowl discussions since they are ideal for role play that clarifies processes; observing, analyzing, and practicing skills helps students develop those skills for themselves.

To promote clarity during the activity, we created PowerPoint slides that include both steps to cover during each phase of the WISE model as well as instructions for the fishbowl discussion. Both actors and students can view the slides during the activity to ensure that the example interactions cover all necessary components and that the subsequent discussions stay focused on constructive and supportive feedback.

To ensure we had content for the role play (and to avoid putting the student actors on the spot), we created a set of "identity cards" that the "students" would draw to give them direction to guide their role play session. We created 10 cards that cover some common tutoring and coaching situations; for example, "You did really well in high school, but now you're struggling in the same subjects you used to excel at. You don't know what's going on, but it is affecting your confidence."

For this practice session, I would share and discuss these materials, conduct the activity with participants in small groups, and then bring everyone back together to debrief. Participants will receive a handout explaining the WISE model, a copy of the fishbowl discussion slides, and the list of identity prompts.

Bean, John C. Engaging Ideas: The Professor's Guide to Integrating Writing, Critical Thinking, and Active Learning in the Classroom. San Francisco: Jossey-Bass, 2001. Print. p. 178.

Brookfield, Stephen D. and Stephen Preskill. Discussion as a Way of Teaching: Tools and Techniques for Democratic Classrooms. 2nd ed. San Francisco: Jossey-Bass, 2005. Print. p. 109-111

MacDonald, Ross B. The master tutor: a guidebook for more effective tutoring. Williamsville, N.Y: Cambridge Stratford Study Skills Institute, 1994. Print.
"Unit 3: Creating a Supportive Structure for Learning." An Introduction to Student-Centered Peer Education. Academic Success Center at Oregon State University. https://oer.oregonstate.education/peer/#/3/3

Using Flipgrid to Enhance 4 Areas of Instruction

Stacia Miller, Christina J. McIntyre, Suzanne Lindt, Midwestern State University

Technology has the power to motivate and engage students and holds limitless possibilities for instructional uses in the classroom. An online video response platform, Flipgrid, can be used in online or face to face classes for icebreakers, mini-presentations, reflections, text responses, collaboration, video discussions, and assessments and can be structured to assist students in developing important critical thinking skills, applying concepts, and deepening their understanding of concepts. This interactive practice session will familiarize participants with the Flipgrid platform, explain research using Flipgrid, and model strategies for the college classroom. Attendees will also sample Flipgrid using one of the instructional strategies.

Technology has the power to motivate and engage students and holds limitless possibilities for instructional uses in the classroom. There is a seemingly endless stream of new technologies emerging with educational applications for use both in and outside of the classroom. One of these technologies is Flipgrid, an online video response platform developed by a university professor to engage his students. Similar to social media platforms, such as Snapchat, Flipgrid allows teachers to create groups or classes that students can join. In a group, teachers create topic cards that provide prompts where students can respond by creating a short video up to five minutes. Once students respond to the topic, other students in the group are able to view and respond to their classmates through video or text (Fahey, Moura, & Saarinen, 2019). Flipgrid can be used for icebreakers, mini-presentations, reflections, text responses, collaboration, video discussions, and assessments and can be structured to assist students in developing important critical thinking skills, applying concepts, and deepening their understanding of concepts.

Though Flipgrid is a newer technology, research has been conducted to reveal its benefits to the college classroom. The presenters' research has examined students' development of Depth of Knowledge (DOK) through observation and analysis of students discussion posts in the Flipgrid online video response platform and we have compared Flipgrid responses to written discussion posts in a learning management system (McIntyre, Lindt, & Miller, 2020; 2021). In the 1990s, Norman Webb developed the Depth of Knowledge (DOK) model to explain the depth of understanding students must have in order to complete a task, usually an assessment or classroom activity (Web 1997, 1999; Hess, 2006). The four-level DOK model places emphasis on students' understanding of the foundational knowledge necessary to build a level of understanding that allows them to complete higher-level tasks successfully (Web 1997, 1999; Hess, 2006). The results of our research have indicated that Flipgrid is a useful tool for increasing students' DOK and that a significant difference does exist between the level of DOK responses when comparing D2L to Flipgrid responses. The findings of our research suggest that providing students the opportunity to engage in discussions that are not limited to traditional online text-based discussions can elicit more in-depth responses, lending to greater critical thinking skills.

This interactive practice session will explain research in the field using Flipgrid with a focus on the benefits for students and instructors. The presenters will model strategies for the college classroom, focusing specifically on strategies that can enhance students' critical thinking, application of concepts, collaboration with peers, and strategies to facilitate formative assessment. Examples from a variety of disciplines will be shared to assist instructors in creating their own Flipgrid related activities. Attendees will also sample Flipgrid using one of the instructional strategies discussed.

Hess, K. (2006). "Exploring cognitive demand in instruction and assessment." [online] available: http://www.nciea.org/publications/DOK_ApplyingWebb_KH08.pdf. National Research Council. (2001).

McIntyre, C.J., Lindt, S. & Miller, S. (2020). Using Flipgrid to Increase College Students' Depth of Knowledge. In. Gary H. Marks &. Denise Schmidt-Crawford (Eds.), Proceedings of Society for Information Technology & Teacher Education

International Conference (pp. 1525-1530). Online: Association for the Advancement of Computing in Education (AACE). Retrieved April 13, 2020 from https://www.learntechlib.org/primary/p/215959/.

McIntyre, C.J., Lindt, S.F., & Miller, S.C. (August 24. 2021). Increasing college students' depth of knowledge: Comparing video and discussion board responses. Virtual poster presentation at the European Association of Research on Learning and Instruction Conference.

Webb, N. (1997). Research Monograph Number 6: "Criteria for alignment of expectations and assessments on mathematics and science education. Washington, D.C.: CCSSO.
Webb, N. (August 1999). Research Monograph No. 18: "Alignment of science and mathematics standards and assessments in four states." Washington, D.C.: CCSSO.

Using Team Teaching to Promote Integrated Learning Among Undergraduates

Yu-Fe Chen, Lauren Brooks, Nazareth College

Interactive team teaching is associated with a wide array of benefits for faculty and students. This practice session highlights the application of team teaching to facilitate interprofessional learning and collaboration among undergraduate students pursuing majors in STEM, social sciences, and humanities in a course on "translational science." Participants will be introduced to the "PESTILES" framework. We will also describe our rationale, planning, delivery, and lessons learned from this experience.

Existing literature: Interactive team teaching can be characterized as a type of "[teaching] arrangement that [includes] two or more faculty in some level of collaboration in the planning and delivery of a course," and these faculty are present in front of the class simultaneously (Davis 1995). Prior research has described a wide array of benefits associated with team teaching (Halverson 2021). For faculty, this practice can help augment teaching skills, deepen insights into disciplines, foster collegial relationships, and develop interprofessional understanding and collaboration. For students taking team-taught courses, this modality can enhance enhancing analytic abilities, offer exposure to multiple disciplines, strengthen the cohesiveness of a learning community, and ultimately, facilitate deeper learning. In this practice session, we will describe our rationale, planning, delivery, and lessons learned from an interactive team-taught course that sought to integrate information from basic and social sciences and the humanities at a smaller liberal arts institution in New York.

Teaching context: To promote interprofessional learning and collaboration among undergraduate students majoring in basic sciences and social sciences, we developed a course on translational science, defined as "the process of turning observations in the laboratory, clinic, and community into interventions that improve the health of individuals and populations" (Tufts 2021). Drawing from our respective expertise in immunology/microbiology and public health, we introduced students to translational science through readings, case studies, debates, discussions, and experiential learning focused on four burdensome diseases: COVID-19, malaria, breast cancer, and HIV. To facilitate learning across disciplines, we utilized the "PESTILES" framework (Political, Economic, Social, Technological, Inter/intra-cultural, Legal, Environmental, and Scientific), based on the "PEST" and "PESTLE" analysis tools (Sammut-Bonnici, 2014). Assessment of student learning outcomes included a variety of measurements, including pre/post knowledge quizzes, quality and content of reflective writing, and usage of "Perusall," a collaborative e-reader tool (Perusall 2021). As of October 1, 2021, data collection is underway and will be completed by December 2021.

Audience engagement: To promote audience engagement in this practice session, Poll Everywhere will be used to collect responses from participants. Google Jamboard may be used during a mini-breakout for participants to apply our PESTILES framework to a topic of their choice. We also propose to ask the following discussion questions (in small groups): (1) Share prior experience with team teaching and the benefits and challenges associated with this method; (2) Apply the "PESTILES' framework on a current debate or controversy from your field or discipline (and share your experiences afterward); and (3) Describe how the "PESTILES" framework can be used to enhance teaching and learning practices in the future.

Tentative timeline: The 45 minutes available in the practice session will be allocated in the following way: (a) introductions, 3 minutes; (b) review of relevant literature on team teaching, 5 minutes; (c) description of our teaching context, 10 minutes; (d) participants apply the "PESTILE" framework in small groups based on a given scenario, 12 mins; (e) report-out, discussion, and wrap-up, 15 mins.

"About Translation." National Center for Advancing Translational Sciences, U.S. Department of Health and Human Services (DHHS), 22 Dec. 2020, https://ncats.nih.gov/translation.

Davis JR. Interdisciplinary courses and team teaching: New arrangements for learning. Greenwood; 1995.

Halverson T. "Team Teaching: A Brief Summary." Team Teaching: A Brief Summary | Center for Teaching and Learning, https://ctl.byu.edu/tip/team-teaching-brief-summary; 2021.

Perusall. "About Perusall." Perusall, https://perusall.com/about; 2021.

Sammut-Bonnici, T and Galea, D, PEST analysis. https://bit.ly/3mbiZYv; 2014.

"What Is Translational Science?" Tufts Clinical and Translational Science Institute, https://www.tuftsctsi.org/about-us/what-is-translational-science/; 2021.

Visualizing Universal Design for Learning in the Higher Education Classroom

Randy Laist, Nicole Brewer, Goodwin University
Dana Sheehan, Anna Maria College

The pedagogical approach known as Universal Design for Learning aligns effectively with the values of higher education in its emphases on catering to a diverse population of students, teaching students to be reflective thinkers and master learners, and embracing innovative techniques and technologies. This roundtable discussion seeks to foster conversations about how UDL-based principles can help to break down departmental silos, to encourage faculty dialogue, and to affirm a consistent institutional teaching philosophy.

The pedagogical approach known as Universal Design for Learning aligns effectively with the values of higher education in its emphases on catering to a diverse population of students, teaching students to be reflective thinkers and master learners, and embracing innovative techniques and technologies. The language of UDL has been incorporated into higher education policy through, for example the Higher Education Opportunity Act (2008) and the Strengthening Career and Technical Education for the 21st Century Act (2018), and a growing number of postsecondary institutions, including Boston College, the California State University System, Johns Hopkins, and McGill, all have UDL-informed initiatives on their campuses. Slowly but surely, "the UDL revolution" is redesigning what college classrooms look like, how college faculty teach, and how students engage with their postsecondary education.

Although UDL was originally pioneered in K-12 settings, the spirit of flexibility inherent in UDL theory allows it to encompass the diversity of postsecondary educational environments. UDL-informed teaching can address what CAST refers to as "the wide variability of learners in higher ed environments" (n.d.), but it also provides an educational philosophy that is adaptable enough to apply to the wide variety of disciplines typically offered on most college campuses, from traditional academic subjects such as sciences and liberal arts to professional studies in fields such as Education, Business, and Manufacturing. Fostering conversations about how UDL principles apply in different ways to different disciplines can help to break down departmental silos, to encourage faculty dialogue, and to affirm a consistent institutional teaching philosophy.

This roundtable discussion will be led by three professors who hold the title of UDL Fellows from Goodwin University, and who have recently edited a collection of essays on how professors across a variety of disciplines have incorporated UDL-based ideas into their teaching.

We hope to invite fellow educators into a robust conversation focused around several key questions:

- What strategies do we use to engage students in the learning process, and what other strategies might we consider to encourage students to feel a sense of emotional investment in what we teach?
- How can we design our courses in ways that make them accessible to more students?
- Do the assessment strategies we rely on effectively measure the course outcomes we want students to achieve?
- Are there unnecessary barriers to success in our classes that can be eliminated or compensated for?

We hope that this conversation will encourage participants to share alternative educational approaches that can help to address some of the challenges associated with teaching in a time of disruption and transformation, while also conceptualizing broader solutions for reimagining the nature of educational engagement at the higher-ed level. It is easy to see that the homogenized, teacher-centered method of instructional delivery is already long past its sell-by date. It is our hope that this roundtable discussion will sketch out a vision of the varied and vibrant classroom dynamics that will take its place.

CAST (n.d.). "UDL in Higher Ed." Retrieved from http://udloncampus.cast.org/page/udl_about

What makes a whole-class discussion a good discussion?

Todd Dinkelman, University of Georgia

> Discussion seems to hold a special place among methods of teaching in higher education. Imagine 'teaching action photos" that populate college and university promotional materials and websites. Perhaps an image comes to mind of a small seminar, participants sitting in the round, bright and interested in exploring some big idea by talking together. This facilitated discussion will explore the "practical theories" of instructors who teach through discussion. What makes a discussion a good discussion? How do you know a good discussion when you see one? What standards do we hold for powerful discussion and where did these come from?

Despite widespread enthusiasm and advocacy for discussion as a powerful method of teaching in higher education, literature appears surprisingly inattentive to characterizations of what counts as high-quality classroom discussions. On a basic level, educators appear to hold different ideas in mind of what even counts as discussion in the classroom (Nystrand, Gamoran, & Carbonara, 1998; Hess, 2008). Beyond that, although scholars have advanced models or frameworks of effective discussion (e.g., Hess, 2008, p. 210; Schuitema, Radstake, van de Po, & Veuglers, 2018), we do not know a great deal about the qualities instructors hold in mind of what separates more from less effective discussions. How would most faculty identify a powerful discussion if they saw one? In this session, I offer an articulation of the vision of powerful discussion supporting the pedagogical decision-making I have developed over time as a teacher who values teaching through and for discussion.

This elaborated conception of powerful discussion consists of six parts-- deliberation, diversity, mutuality, participation, topicality, and meaning-making, and draws heavily on Dewey's articulation of the relationships among deliberation, discussion, democracy, and education to represent the commitments an instructor brings to bear in making sense of teaching. More than a theoretical argument favoring a certain view of discussion, the proposed discussion will center on making visible the qualities of discussion animating the actual practice of higher education faculty.

Thus, the intention here is not to merely present a theoretical vision of qualities we might consider of powerful and effective discussions, but also to highlight how discernment of the ways these qualities play out it in the ground-level settings of higher education classrooms. The proposed discussion will address the working features of the practical theories educators employ to "enact" meaningful discussions as an important feature of their pedagogy (Kennedy, 2016).

Session Questions:

- Recall your best moments as an instructor using discussion? What happened that elevates these moments to "best?"
- How would you articulate the characteristics of a powerful discussion?
- How did you come to form your ideas of what counts as a powerful classroom discussion?
- What are the limits of discussion as a form of teaching?
- Does discussion make more sense in certain disciplines or subject areas in higher ed?
- What would make it possible for our best discussion moments to become more common?

Work Smarter, Not Harder: Assessment through Specifications Grading

Michelle Gricus, Hood College

While the coronavirus seems to have boundless energy, human beings are exhausted. Systems built to privilege some and disenfranchise others further deplete what energy remains, especially in spaces intended for learning. To conserve our spirits and fulfill our responsibilities, we are called to be more "energy efficient" and flexible than ever before. Specifications-grading is one equitable strategy for conserving student and faculty energy to reach learning outcomes without sacrificing rigor. Using examples and exercises, this workshop will introduce specifications grading as a model for addressing inequities inherent in traditional grading systems.

Historically, employers have used college graduates' GPA as an indicator of employability; however, recent studies suggest this is becoming an increasingly unreliable measure (Freire-Seoane et al., 2019). Students who earn high grades may "misunderstand their own capabilities" (Chowdhury, 2018, p. 88) and promote faulty thinking about their actual knowledge, skills, and abilities (Miller, 2014). Anecdotal evidence related to the educational impact of the pandemic finds that faculty reduced workloads and/or expectations for graded work out of compassion for their students' pandemic-related stressors and inequities (Downey, 2020). Additionally, at-home learning has resulted in surges in cheating in colleges and universities, further eroding faculty confidence in what students are learning (Asimov, 2020). When added to the growing evidence that not all grades are created equal (Chowdhury, 2018) and reward those with privilege (Feldman, 2018), the challenges exacerbated by the pandemic require innovative solutions that reduce stress and maintain rigor. In other words, faculty and students need strategies that help them to work smarter, not harder.

One such strategy is specifications grading, which shifts the focus from the instructor assigning a letter grade or point value toward the student reaching acceptable performance levels (Nilson, 2015). While traditional rubrics help faculty to communicate standards more clearly, they have been critiqued for being subjective, vague, or restrictive of student creativity (Ragupathi & Lee, 2020). For instance, subjective rubric descriptions (e.g., "well-written") can leave room for interpretation prompting debates about whether a grade should be changed (Nilson, 2015). Inconsistencies in interpretation can translate to inequities in the learning environment (Feldman, 2018). Additionally, true proficiency is not easily assessed. It is possible for a student to earn a B on an assignment where the most important standard is marked "Needs Improvement." The value of this letter grade to the student is variable: Some students may review the rubric carefully, while others see the B, assume that they learned what they needed, and move on to the next assignment.

In specifications grading, all assignment "specs" align with what the student needs to demonstrate to meet the stated learning objective. A specs rubric is two levels--the student successfully met the criteria for the assignment or did not (Nilson, 2015). There is no partial credit (Carlisle, 2020). Specifications grading removes the subjective experience of grading, making it more equitable for students and, at the same time, making it a less stressful experience for the instructor. On the rubric, the student can clearly see the areas where the standard was not met and is often given the opportunity to try again (Nilson, 2015). Through this all-or-nothing approach, student invest their energy producing work that demonstrates proficiency.

This interactive workshop will introduce participants to the concepts of specifications grading, discuss the use of specifications grading in the presenter's courses, and engage participants in designing an assignment through a specifications-based lens.

Asimov, N. (2020, November 3). Online cheating surges during the pandemic; universities struggle to find a solution. San Francisco Chronicle. https://www.sfchronicle.com/education/article/Online-cheating-surges-during-the-pandemic-15696066.php

Carlisle, S. (2020) Simple specifications grading, PRIMUS, 30(8-10), 926-951, DOI:10.1080/10511970.2019.1695238

Chowdhury, F. (2018). Grade inflation: Causes, consequences and cure. Journal of Education andLearning, 7(6), 86-92. Council on Social Work Education. (2015). Educational policy and accreditation standards forbaccalaureate and master's social work

programs.https://www.cswe.org/getattachment/Accreditation/Standards-and-Policies/2015-EPAS/2015EPASandGlossary.pdf.aspx
Day, T., Chang, I. C. C., Chung, C. K. L., Doolittle, W. E., Housel, J., & McDaniel, P. N. (2021). Theimmediate impact of COVID-19 on postsecondary teaching and learning. The Professional Geographer,73(1), 1-13.
Downey, M. (2020, November 29). Grade inflation debate: A for effort or A for everybody? The AtlantaJournal-Constitution.https://www.ajc.com/education/get-schooled-blog/grade-inflation-debate-a-for-effort-or-a-for-everybody/436ZILEJSNAEZK3QGUSOJGUT24/
Elkins, D. M. (2016). Grading to Learn: An analysis of the importance and application of specifications grading in a communication course. Kentucky Journal of Communication, 35(2), 26-48.
Fink, L. D. (2013). Creating significant learning experiences: An integrated approach to designing college courses. San Francisco: John Wiley & Sons.
Freire-Seoane, M. J., Pais-Montes, C., & Lopez-Bermdez, B. (2019). Grade point average vs competencies: which are most influential for employability?. Higher Education, Skills and Work-Based Learning, 9(3), 418-433.
Miller, G. (2014). Grade inflation, gatekeeping, and social work education: Ethics and perils. Journal of Social Work Values and Ethics, 11(1), 12-22.
Nilson, L. B. (2015). Specifications Grading: Restoring Rigor, Motivating Students, and Saving Faculty Time. Sterling, VA: Stylus Publishing.
Ragupathi, K., & Lee, A. (2020). Beyond fairness and consistency in grading: The role of rubrics in higher education. In Diversity and inclusion in global higher education (pp. 73-95). Singapore: Palgrave Macmillan.

RESEARCH SESSIONS

A Comparison of Traditional and Online Midsemester Feedback

Gavin Frome, Erin Horan, American University

This session will present the findings of a study evaluating the transition from collecting midsemester feedback in traditional, face-to-face class environments to entirely online environments. Researchers compared faculty requests for midsemester facilitations before and after the transition to online instruction to determine the impact of the format change on program participation. Results indicated that faculty and student participation increased with the transition to the online format. Institutions with facilitated midsemester feedback programs should consider expanding their services to provide faculty with asynchronous and online feedback collection tools.

Introduction

The transition to online instruction in the spring of 2020 necessitated the adaptation of many services to an online format, including our institution's midsemester feedback program. Since fall of 2019, our institution has offered a service called a Midsemester Course Analysis (MCA), which employs a multilevel survey technique to capture student feedback at the individual, group, and class levels. This service is facilitated by a staff member during a class session. Beginning in fall of 2020, MCAs were adapted to an online environment and a new Midsemester Survey Service (MSS) was added. The MSS captures student feedback only at the individual level but may be administered by an instructor during or outside of a class session.

Literature Review

Research on formative assessments indicates that collecting student feedback at the midpoint of a course can help teachers calibrate their instructional strategies to better meet the needs of their students. This practice has been demonstrated to improve student attitudes toward instruction (Abbott, et al., 1990; Clark & Redomnd, 1982; McDonnell & Dodd, 2017), enhance learning outcomes (Overall & Marsh, 1979; Sozer et al., 2019), and increase student ratings of instruction (Cohen, 1980; Wickramasinghe & Timpson, 2006). It has also been shown to be effective in both traditional and online course formats (Milman 2014; O'Neal-Hixson et al., 2017; Peterson, 2016) though students tend to write more when completing assessment instruments online (Ballantyne, 2003; Bullock, 2003).

Study Methodology

The primary aim of this study was to determine the impact of the transition of midsemester feedback services (MSF) to an online format. Researchers were interested in identifying any changes in faculty or student participation rates. Records of MSF requests were examined to determine faculty participation rates, while reports generated from the resulting feedback sessions provided student response data.

Data Analysis and Results

An examination of faculty request data indicated that faculty and student participation increased with the transition to the online format. A total of 41 faculty requests were received in the traditional format during the Fall 2019 and Spring 2020 semesters, while the online feedback services in the Fall of 2020 and Spring of 2021 received a total of 73 requests, indicating a 78% increase. Likewise, 800 students in total participated in the traditional format programing, while 1516 students participated in the online programing, indicating a 90% increase. However, student participation relative to class size decreased with the transition to an online format, with the average student participation rate in the traditional format being 68% of students in a course and the average student participation rate in the online format being 62%, indicating a decrease of 6%.

Conclusions

Our data indicate that providing a variety of midsemester feedback services can increases faculty participation without compromising student cooperation. Institutions seeking to augment the impact of their programming should consider expanding their services to include synchronous and asynchronous procedures for both online and traditional instructional formats.

Abbott, R. D., Wulff, D. H., Nyquist, J. D., Ropp, V. A., & Hess, C. W. (1990). Satisfaction with processes of collecting student opinions about instruction: The student perspective. Journal of Educational Psychology, 82, 201-206.

Ballantyne, C. (2003). Online evaluations of teaching: An examination of current practice and considerations for the future. New Directions for Teaching and Learning, 2003(96), 103-112. https://doi.org/10.1002/tl.127

Bullock, C. D. (2003). Online collection of midterm student feedback. New Directions for Teaching & Learning, 2003(96), 95-102. https://doi.org/10.1002/tl.126

Clark, D. J., & Redmond, M. V. (1982). Small Group Instructional Diagnosis: Final Report. https://eric.ed.gov/?id=ED217954

Cohen, P. A. (1980). Effectiveness of student-rating feedback for improving college instruction: A meta-analysis of findings. Research in Higher Education, 13(4), 321-341.

McDonnell, G. P., & Dodd, M. D. (2017). Should students have the power to change course structure? Teaching of Psychology, 44(2), 91-99. https://doi.org/10.1177/0098628317692604

Milman, N. B. (2014). The Mid-Term Tune-Up. Distance Learning, 11(4), 51-53.

O'Neal-Hixson, K., Long, J., & Bock, M. (2017). The eSGID process: How to improve teaching and learning in online graduate courses. Journal of Effective Teaching, 17(2), 45-57.

Overall, J. U., & Marsh, H. W. (1979). Midterm feedback from students: Its relationship to instructional improvement and students' cognitive and affective outcomes. Journal of Educational Psychology, 71(6), 856-865.

Peterson, J. (2016). Formative evaluations in online classes. Journal of Educators Online, 13(1). https://doi.org/10.9743/JEO.2016.1.8

Sozer, E. M., Zeybekoglu, Z., & Kaya, M. (2019). Using mid-semester course evaluation as a feedback tool for improving learning and teaching in higher education. Assessment & Evaluation in Higher Education, 44(7), 1003-1016. https://doi.org/10.1080/02602938.2018.1564810

Wickramasinghe, S. R., & Timpson, W. M. (2006). Mid-semester student feedback enhances student learning. Education for Chemical Engineers, 1(1), 126-133. https://doi.org/10.1205/ece06012

Beyond Performance: A Study of Alternative Assessments for Design Learning

Matthew Powers, Sallie Hambright-Belue, Clemson University

This study examines how alternative assessment methods like concept mapping, surveys, and interviews can holistically assess design learning in addition to commonly used performance-oriented approaches. These non-traditional assessment methods promote a learning orientation as opposed to a performance orientation, which leads to students being able to self-regulate and focus their attention on strategies that lead to competency. This study will help design educators - as well as others - attune their instruction and projects to meet both student learning and performance needs.

Purpose

This study examines how alternative assessment methods like concept mapping, surveys, and interviews can holistically assess design learning and complement more commonly used performance-oriented approaches.

Background

Previous studies have situated design learning within a social cognitive theoretical framework that emphasizes the role of self-regulated learning (Powers 2016). This view builds on literature suggesting learners have two predominant orientations: (1) performance and (2) learning (Ormrod, 2012). These orientations refer to the types of goals students set for themselves and how those decisions affect thinking and behavior (Schunk, 1996).

In a learning orientation, a student places value on learning as an outcome. Learning-oriented students set goals that tend to focus on strategies that lead to mastery. Schunk (1996) says that learning-oriented students "are more likely to seek help in determining the correctness of their work, whereas performance-oriented students will likely seek help to determine how their work is perceived compared to others" (pg. 381).

Typically, assessment methods in design education include hallmarks such as juries and critiques. These assessment methods are themselves performance-oriented and subsequently reinforce a performance goal orientation in students. However, a performance orientation makes self-regulation difficult since learning is masked by an overreliance on how things appear (Bandura, 1986). Thus, design instructors should explore alternative assessment methods that focus explicitly on learning in order to optimize self-regulation and help students build competency.

Methods

The study has two questions. First, how effectively do alternative assessments like concept mapping and surveys measure design student learning? Second, how do alternative learning assessments complement traditional performance assessments in terms of gauging key cognitive processes like concept development, knowledge acquisition, and metacognition.

The study examines three years of data from multiple studies. Data is analyzed using content analysis and standard statistical procedures. A meta-analysis of the studies is used to situate results into a broader context of design assessment. Study participants include over 250 first year students and more than 75 upperclassmen in architecture and landscape architecture.

Findings

The study's findings suggest that non-traditional methods of assessment reliably forecast student learning in ways that more common practices like design reviews and desk critiques cannot. For example, pre- and post-instruction concept mapping shows a strong correlation to performance. However, the mapping also reveals student knowledge acquisition and concept mastery exceeding the work shown in the design project. In other words, the design project provides a reasonable example of student performance but is limited in what it can reveal about a student's broader understanding. Thus, alternative assessments can help fill in the gaps created by traditional methods and provide a fuller understanding of student learning.

Importance

The study supports the integration of non-traditional assessment methods into the broader practice of monitoring, assessing, and evaluating student learning in design disciplines. In doing so, design educators can more effectively attune their instruction and projects to meet both student learning and performance needs. Additionally, educators from non-design disciplines will gain a greater understanding of the range of possible assessment techniques to consider in their own subject areas.

Bandura, A. (1986). Social foundations of thought and action: A social cognitive theory. Englewood Cliffs, NJ: Prentice-Hall.

Ormrod, J. E. (2012) Human learning (6th ed.). Boston, MA: Pearson.

Powers, M. (2016). Self-regulated design learning: A foundation and framework for teaching and learning design. Routledge.

Schunk, D. H. (1996). Learning Theories. Upper Saddle River, NJ: Prentice Hall.

Connecting Curricular Learning and Career Readiness through ePortfolios

Miguel (Miko) Nino, Scott Hicks, University of North Carolina at Chapel Hill

This presentation focuses on a research-based model named the 6A of ePortfolios, which makes connections between curricular learning and career readiness. The goal of the model is to provide a tool for faculty to design assessments and learning experiences that prepare students for their careers. As this model is implemented, faculty and instructors will also have a strategy to promote 21st century skills such as critical thinking, communication, collaboration, and creativity.

Research finds that use of ePortfolios leads to increased academic performance and deepened intellectual engagement (Ring et al., 2017). In addition, the use of ePortfolios in the classroom can be connected to active learning and high-impact practices (Nagle et al., 2019). Because ePortfolios allow students a medium through which to ascertain and manage what they know, socially-networked ePortfolios are effective at fostering goal setting and learning strategies, corroborating that ePortfolio experiences engage individuals' ability to learn and acquire skills (Alexiou & Paraskeva, 2020). Given these benefits, ePortfolios provide an effective strategy to foster professional development (Coric Samardzija & Balaban, 2014).

ePortfolios have a unique capacity to measure professionalism, assess professional development, and juxtapose students' progress against professional criteria over time (Whitney et al., 2021). Furthermore, they permit the assessment of professional development after graduation and throughout alumni's careers (Watty & McKay, 2015). In addition, research has demonstrated that students find ePortfolios valuable for job seeking (Wakimoto and Lewis, 2019) and career advancement (Cieselkiwicz, 2019). ePortfolio studies focus on a single type of ePortfolio without making connections (Boulton, 2014). One of the most prominent challenges is for students to provide a clear distinction between the learning or assessment ePortfolios and career ePortfolios and how a learning ePortfolio can be used for career success and advancement purposes (Tzeng & Chen, 2012). For this reason, the researchers of this study argue for the need of a model that not only demonstrates the clear distinction between learning and career ePortfolios, but also how career ePortfolios can be used as career success tools after an adaptation of learning ePortfolios.

The study aspires to provide higher education institutions with a model for programmatic implementation ePortfolios that bridges learning and career readiness and success. Evidence of the lack of this type of research (Clayson, 2019) motivates this study and proposed model for implementation. Even though relevant work about career ePortfolios is found in the literature (Coric Samardzija & Balaban, 2014; Rowley & Dunbar-Hall, 2015), there is still a need to expand the knowledge about this type of ePortfolios given that many employers are still unfamiliar with them (Leahy & Filiatrault, 2017), as well as students (Tzeng & Chen, 2012).
Using the integrative review as a methodology, the researchers qualitatively analyzed peer-reviewed ePortfolio studies to answer the overarching question: What process can students follow to professionalize their learning and adapt learning ePortfolios into career ePortfolios?

The results of this study propose a six-step model named the 6A of ePortfolios. This model specifies the types of skills and levels of mastery that students who follow it can gain. These findings are aligned with research that promotes the use of ePortfolios in instruction given their impact on students' learning and growth (Ring et al., 2017). Recognizing evidence of correlation between grades and job performance (Walton et al., 2015), this model might help researchers identify factors that influence students' success in securing employment.

Alexiou, A., & Paraskeva, F. (2020). Being a student in the social media era: Exploring educational affordances of an ePortfolio for managing academic performance. The International Journal of Information and Learning Technology, 37(4), 121-138. https://doi.org/10.1108/IJILT-12-2019-0120.

Boulton, H. (2014). ePortfolios beyond pre-service teacher education: A new dawn? European Journal of Teacher Education, 37(3), 374-389.

Ciesielkiewicz, M. (2019). Education for employability: The ePortfolio from school principals' perspective. On the Horizon, 27(1), 46-56. https://doi-org.proxy181.nclive.org/10.1108/OTH-01-2019-0001.

Clayson, A. (2019). EPortfolios on the job: The use of assessment ePortfolios in the Business and Technical Communication job market. Business and Professional Communication Quarterly, 82(4), 458-474.

Coric Samardzija, A., & Balaban, I. (2014). From classroom to career development planning: Eportfolio use examples. International Journal of Emerging Technologies in Learning, 9(6), 26-31. https://doi.org/10.3991/ijet.v9i6.4027.

Deneen, C. C., Brown, G. T. L., & Carless, D. (2018). Students' conceptions of eportfolios as assessment and technology. Innovations in Education and Teaching International, 55(4), 487-496. https://doi.org/10.1080/14703297.2017.1281752.

Leahy, R., & Filiatrault, A. (2017). Employers' perceptions of the benefits of employment electronic portfolios. International Journal of ePortfolio, 7(2), 217-223.

Nagle, L., O' Connell, M., & Farrelly, T. (2019). A gap in governance: Acknowledging the challenges of organic ePortfolio implementation. Educational Media International, 56(4), 328-342. https://doiorg.proxy181.nclive.org/10.1080/09523987.2019.1682271.

Ring, G. L., Waugaman, C., & Brackett, B. (2017). The value of career ePortfolios on job applicant performance: Using data to determine effectiveness. International Journal of EPortfolio, 7(2), 225-236.

Rowley, J., & Dunbar-Hall, P. (2015). The role of ePortfolios in preparing students for music careers. Australian Journal of Music Education, 2, 216-223.

Tzeng, J.-Y., & Chen, S.-H. (2012). College students' intentions to use e-portfolios: From the perspectives of career-commitment status and weblog-publication behaviours: E-portfolio and career commitment. British Journal of Educational Technology, 43(1), 163-176. https://doi.org/10.1111/j.1467-8535.2010.01165.x.

Wakimoto, L., & Lewis, R. (2019). School counselors' changing perceptions of ePortfolios: From graduate students to professionals. The Internet and Higher Education, 41, 45-50. https://doi.org/10.1016/j.iheduc.2019.01.002.

Walton, J., Gardner, K., & Aleksejuniene, J. (2015). Student eportfolio to develop reflective skills and demonstrate competency development: Evaluation of a curriculum pilot project. European Journal of Dental Education, 20, 120-128. https://doi.org/10.1111/eje.12154.

Watty, K., & McKay, J. (2015). Pedagogy and ePortfolios: purpose aligned to design (or the why and how). International Journal of Pedagogies and Learning, 10(3), 194-207. http://dx.doi.org/10.1080/22040552.2015.1135498.

Whitney, I., Rowley, J., & Bennett, D. (2021). Developing student agency: ePortfolio reflections of future career among aspiring musicians. International Journal of EPortfolio, 11(1), 53-65.

Do Digital Badges Work? Mixed-methods evidence from higher education

Jeffery Robert, Marc Zaldivar, Virginia Tech

Digital badges are virtual representations of accomplishments and skills. Previous research indicates that digital badges may enhance student motivation, incentivize learning, and capture non-traditional learning performance. However, there is very little quantitative and qualitative research specifically targeting student outcomes. Using the first course to fully incorporate a digital badging framework at Virginia Tech, the research team evaluated student perceptions and outcomes associated with digital badging.

After this research session, participants will be more knowledgeable of a new digital technology framework and have evidence of its effectiveness for undergraduate student learning.

Countless articles within the higher education pedagogy literature focus on motiving students and fostering a positive education environment. Some of these articles advocate for a technological approach for nurture student development (Bloom & Doss, 2021). Digital badges represent a new form of classroom technology that may achieve this goal. Digital badging has been associated with enhancing student motivation (Abramovich, Schunn, & Higashi, 2013), incentivize learning (Gamrat, Zimmerman, Dudek, & Peck, 2014), and capturing learning performance not generally recognized through traditional academic assessments (Zhou, Chen, Fan, & Ji, 2019).

Specifically, digital badges are defined as a virtual representation of an accomplishment or skill. While the use of physical badges to depict accomplishments and skills have been around for generations, the dissemination of digital badges for educational purposes first originated in 2010 (Gibson, Ostashewski, Flintoff, Grant, & Knight, 2015). These displays of micro-credentialism emerged from digital game communities and social media culture.
There is evidence that undergraduate students may benefit from the integration of digital badging in higher education courses. However, there are limitations with these previous research articles. Using the first course to fully incorporate a digital badging framework on the Virginia Tech campus, the research team analyzed student perceptions and outcomes associated with digital badging. The results from the mixed-methods research will be described in this research session.

In addition to learning and achievement gains in the classroom, students may display their earned digital badges on LinkedIn to signal these developed skills to future employers. Our future research will connect digital badges with hiring practices to evaluate the value of digital badges for undergraduate jobseekers.
Currently, this research is on-going. The data collection and analysis phase of the research will be completed by December 2021. The feedback from conference attendees will help improve our research manuscript and provide additional direction for research.

Abramovich, S., Schunn, C., & Higashi, R. M. (2013). Are badges useful in education? It depends upon the type of badge and expertise of learner. Educational Technology Research and Development, 61(2), 217-232.

Bloom, L. A., & Doss, K. (2021). Using technology to foster creative and critical thinking in the classroom. In Research Anthology on Developing Critical Thinking Skills in Students (pp. 553-567). IGI Global.

Gamrat, C., Zimmerman, H. T., Dudek, J., & Peck, K. (2014). Personalized workplace learning: An exploratory study on digital badging within a teacher professional development program. British journal of educational technology, 45(6), 1136-1148.

Gibson, D., Ostashewski, N., Flintoff, K., Grant, S., & Knight, E. (2015). Digital badges in education. Education and Information Technologies, 20(2), 403-410.

Zhou, L., Chen, L., Fan, Q., & Ji, Y. (2019). Students' perception of using digital badges in blended learning classrooms. Sustainability, 11(7), 2151.

Double Your Creativity Skills in One Hour!

Jane Machin, Radford University

Creativity is not a static entity but a skill that can be learned, nurtured and improved. This research examines the potential of the Alternate Uses Task (AUT; Guildford, 1967) to improve divergent thinking. Commonly used to assess creative performance, the potential for the task to improve creative performance is less well understood. In this research, 231 participants were invited to take an online version of the AUT as many times as they wished over the course of 12 weeks. Participants demonstrated improvements on four measures of divergent thinking - response fluency, originality, flexibility, and feasibility - with each successive attempt.

Designed originally to identify different creativity constructs, such as fluency, originality, flexibility and elaboration, the Alternate Uses Task (AUT; Guildford, 1967) invites participants to identify unusual uses for a common object, such as a brick or paperclip, within a restricted time period. In this study, 231 student participants were invited to take an online version of the AUT as many times as they wanted over the course of one semester. The task was administered through Qualtrics and used a different, randomly generated picture each time a participant logged in. Participants were given two minutes to identify as many alternate uses for the pictured item as possible. The primary hypothesis was that taking the AUT multiple times would improve divergent thinking skills. The dependent variables were fluency of ideas (a simple count of the answers given), originality of ideas (a measure of how unusual - or divergent - those answers were), the flexibility of the ideas (a measure of the range of categories the ideas could be grouped in) and the feasibility of the ideas (a measure of how well the idea could be applied to the object).

Participants took the test a total of 1,637 times in total, though frequency of participation varied. The mean number of attempts was 9.63 (14.12) with 14% only attempting the task one time (the modal number of attempts) while one person attempted the task 95 times (the maximum number of attempts). The bottom 25th percentile of attempts was 2, the top 75th percentile of attempts was 10 and the median number of attempts was 5.

Results reveal a significant relationship between the number of times students took the AUT and the fluency of their responses ($F= 4.907$, $p< 0.001$). Specifically, with each attempt, 0.36 new responses were achieved on average. Mean fluency with just one attempt was 5.65 (2.87) ideas. This increased to 8.32 (2.87) ideas after the fifth attempt and to 10.56 (4.13) ideas by the 20th attempt and an average of 12.3 (3.74) ideas by the 40th attempt. At 18 attempts participants on average doubled the number of ideas generated compared to their first attempt.

Three coders coded the ideas for originality, flexibility, and feasibility. Results reveal a significant relationship between the number of times students took the AUT and the originality of their responses ($F= 12.965$, $p< 0.001$), the flexibility of their responses ($F= 13.683$, $p< 0.001$), and the feasibility of their responses ($F= 12.965$, $p< 0.001$). On the first attempt, only 27%, 21%, and 28% of ideas were rated highly original, flexible, or feasible respectively. By the 30th attempt, 84%, 71%, and 82% of ideas were rated as highly original, flexible, or feasible.

The results of this study suggest that the AUT can be assigned as a simple task to improve student creativity. 2160 seconds (36 minutes) of effort doubled the creative output (fluency) of participants while an additional 24 minutes (an hour total) increased the originality, flexibility, and feasibility of those hours.

Guilford, J. P. (1967). The nature of human intelligence.

Empowerment in Career Exploration: assessing an intervention for first-year students

Najla Mouchrek, Virginia Tech

Developmental challenges in the transition to adulthood call for a process of empowerment that supports student to guide themselves and build capacities. As part of a larger research project on empowering experiences in the transition to adulthood, this study investigated how a framework for empowerment in emerging adulthood may be used to support career exploration in college. The study included development and assessment of a semester-long, participatory design-based intervention for Virginia Tech first-year students exploring career options. Quantitative assessment of the intervention demonstrate that it improved personal agency, sense of purpose, several career adapting responses, and progress in career choice.

Developmental challenges in emerging adulthood call for a process of empowerment that supports students in their trajectories. The study (Mouchrek, 2019) examines how empowerment constructs and participatory design strategies can be applied in supporting college students within the transition to adulthood through guided career exploration. It included development and assessment of a semester-long intervention for Virginia Tech first-year students exploring career options, aimed to foster empowerment constructs towards developmental outcomes linked to career decision and development. Overall, the study advanced the question: how might we create empowering settings for career exploration for first year students in college? The intended results aimed to foster adaptive conditions for students to deal with the career exploration enterprise in a developmental way, promoting career adaptability in the current scenario requiring constant change and evolution in dynamic contexts.

We will focus on the intervention's quantitative assessment. The study investigated a diverse set of research questions, from which we highlight: to what degree did the intervention (a) improve student adapting responses to primary career construction tasks (vocational thoughts and behaviors involved in career choice); (b) map onto the change in scores for empowerment constructs (agency, purpose, mentoring and community experience)?

The intervention was developed in the context of a first-year experience class at Virginia Tech, targeted to freshmen students with undecided majors. It was administered over ten weeks, to approximately 200 students enrolled in four sections, while the remaining seven sections remained as a comparison group. Pre- and post-course evaluation surveys were administered to students across all sections (intervention = 126, comparison = 215). The evaluation consisted of a repeated-measure, nested multilevel design. Observations were always measured at level 1 (students), the predictor variables could be measured in both levels (students and class). The analysis investigated fixed and random effects in both levels. The survey instrument used quantitative methods to assess items on major decidedness, empowerment, vocational identity status, and career construction adapting responses. The statistical analysis of pre- and post- tests investigated: (a) changes in scores over time within groups; (b) differences in change in scores between intervention group and comparison group.

Improvements in In-Depth Career Exploration and Crystallizing adapting responses were key findings of the study. Empowerment emerged as a strong positive predictor of In-Depth Exploration -- which is also a key precursor of other processes such as Major Decidedness and career construction adapting responses of Crystallizing, Deciding, and Preparing. Participants had increase in all subscales of career adapting responses and behaviors. Students advanced the process of crystallizing a vocational self-concept, and were devoting relatively more time to explore and gather information about occupations. Proportionally, more students were taking concrete actions to decide to commit to an occupational choice and to prepare themselves to implement that choice. Students had statistically significant improvement in scores for Personal Agency and Sense of Purpose, which was particularly beneficial for participants who started with lower scores. Scores in Empowerment constructs were highly correlated with several career adapting responses.

Keywords: Youth Empowerment, Emerging Adulthood, College Student Development, Career

Mouchrek, N. (2019). Empowerment in the Transition to Adulthood: Supporting Career Exploration in College Using Participatory Design (Doctoral dissertation, Virginia Tech).

Graduating With Honor: Student Perceptions of Ethical Reasoning Practices

Joseph Daniel, Raymond Thomas, Stephanie Lewis, Anne-lise Velez, Virginia Tech

This presentation will provide a summary of a recent study carried out by the Honors College at Virginia Tech in which student perceptions of ethical reasoning skill development were collected and evaluated. The study interrogates norms, values, and concepts of ethical reasoning that students express learning throughout secondary education. Additionally, the study aims include examining if students value or self-consciously apply established ethical decision-making frameworks. Preliminary findings suggest that students strongly associate ethics with concepts like morality and personal belief systems at a novice level aimed at utility in professional settings. Additional findings will be shared.

The idea of an ethical education is not a novel concept. Across all cultures there is an understanding that education will impart societal norms and values alongside information transfer. An estimated 80% of state universities mandate some form of ethical training in their curriculum (Nucci and Narvaez, 2008). However, it is concerning to see that many schools are choosing to sidestep teaching ethics with some schools continuing to cut ethics courses despite the growing list of scandals and unethical behavior (Swanson, 2004). More could then be done to improve the effectiveness and uniformity of ethical education at the university level.

This study aims to add to understanding of how students perceive and develop ethical reasoning skills in undergraduate course environments. Between 2018 and 2019, the Honors College surveyed 109 undergraduate students to determine the contexts in which they learned ethics, how they thought about applying ethical reasoning, and the process that they operate under when making ethical decisions. The survey was conducted over the period of four semesters with students in fifteen sections of a transdisciplinary seminar course.

Student responses from written documents and an online survey tool were cataloged and subsequently transposed to individual documents for coding. A sample set of responses were used for the two primary coders and two secondary coders to determine a baseline pool of codes. All responses were evaluated for the established codes: a definition of ethics, past examples of using ethical reasoning skills, a description of the respondent's ethical reasoning process, how they learned about ethics, and instances where respondents described using ethical practices from class in other environments in the future.

Preliminary results show that approximately one-third of respondents specifically mentioned morals or morality in their definition of ethics. Values and beliefs were also frequently mentioned. Students describe their personal values and life experiences as being the most impactful when going through the process of making an ethical decision. Additionally, a small portion of students drew upon established ethical theories and decision making methodologies learned through classes in their self-described ethical decision making processes.

Notably, students' definitions and perceptions of ethics often manifested in simplistic, often novice interpretations of ethical decision making. Students described their potential future use of ethical reasoning in siloed “legalistic” or “professional integrity” settings. Furthermore, a small subset of respondents did not identify ethics or ethical decision-making as something worth learning or actively using in their daily lives.

These findings enhance our understanding of what the current impact of existing ethical education structures is on student perceptions. The novice level understanding of ethics found among our participants falls in-line with Perry’s early stages of cognitive development (Perry 1999). This potentially indicates that more could be done to enhance students’ ability to engage in deeper ethical reasoning through more active methods of education. Such methods may include workshops, practicals, and real world scenarios to move the concept of ethical reasoning from academic curiosity to real world practice for students (Lin, Lu, & Chung, 2010).

Nucci, L. P., and D. Narvaez. (2008). Handbook of Moral Character Education. New York: Routledge.
Perry, W. (1999). Forms of Intellectual and Ethical Development in the College Years: A Scheme., Jossey-Bass Higher and Adult Education Series. New York: Holt Reinhart and Winston.
Swanson, D. (2000). The Buck Stops Here: Why Universities Must Reclaim Business Ethics Education. Journal of Academic Ethics 2(1):43-61.

Lin,C., Lu, M., and Chung, C. (2010) A comparison of problem-based learning and conventional teaching in nursing ethics education. Nursing ethics. 17(3), 373-382.

Holistic student support in the chemistry major: design, implementation, impact

Sally Wasileski, University of North Carolina at Asheville

A student support program scaffolded within the chemistry major curriculum at UNC Asheville aims to more-holistically support the academic, social and emotional needs of chemistry students. The program is funded by a NSF S-STEM grant and support elements are scaffolded in three stages of the student experience: (1) transition from highschool to college; (2) from 'students in courses' to identifying as chemistry majors; and (3) preparation for entering the chemical workforce. The presentation will focus on program design, implementation and impact on students including results on student persistence, well-being, sense of belonging, motivation in their major, and engagement.

There are a high number of first-generation students pursuing a chemistry degree at UNC Asheville. Primary factors in student persistence in college, especially in earning a STEM degree, are student's capacity (capability to learn), self-efficacy (confidence in their ability), interest, and belongingness in the community of learners.1 All of these factors are highly influenced by the student's learning environment, which is created by students, faculty and staff, courses, specific program elements, and shaped by department and university culture. Research has also shown that the first year is most important for successful transition of first-generation students into college,2 and the best programs to support first-generation students are those that are integrated into the institutional culture and do not stigmatize students within the campus community.3 Tinto model of student retention4-6 highlights the importance of integrating academic and social support, yet does not address the emotional challenges of being a college student which, if unaddressed, is shown to negatively affect student persistence, regardless of first-generation status.7,8 Student well-being is critically important to student success.

In the Department of Chemistry and Biochemistry at UNC Asheville, we have developed a holistic student support program to address the academic, social and emotional needs of students in order to promote academic success, student well-being, and greater engagement as chemistry professionals. The program involves a unique collaboration between an academic department and Student Affairs and is structured on three transitional stages of students: (1) transition from highschool to college; (2) from 'students in courses' to identifying as chemistry majors; and (3) preparation for entering the chemical workforce. Support elements are scaffolded into the chemistry major curriculum, integrated into the Department culture and include: a learning community of chemistry majors; a first-semester foundational course "The Science and Practice of Learning and Thriving in College" to connect students socially, build academic skills, and build emotional intelligence to face the breadth of challenges of the chemistry major; faculty and peer mentoring; undergraduate research experiences (including course-based, early-career summer, and mentored junior- and senior-level research) to build critical-thinking, problem solving, and communication skills; career readiness professional development; and ongoing academic, emotional and social support structures.

To determine the impact of the holistic program on students and student success, multiple aspects are being measured, including traditional measures of student academic success (GPA, persistence, graduation rates) and other measures that relate to a positive student experience (well being, level of engagement, sense of belonging and motivation in their academic major9,10). We have found some statistically significant differences in these measures for students who are part of the holistic student support program of the chemistry major, as well as shifts resulting from the COVID-19 pandemic, such as a decrease in social well being related to isolation. Project design grounded in the literature, aspects of program implementation (especially of the first-semester holistic student support course "The Science and Practice of Learning and Thriving in College"), methods of assessment and results will be presented.

Packard, B.W.-L., Successful STEM Mentoring Initiatives for Underrepresented Students: A Research-Based Guide for Faculty and Administrators, Stylus Publishing, Sterling, VA. 2016.

Gass, C.M., Thomas, H., Stowell, J., Werts, A., Lewis, P., Beaman, P., Lytle, A., UNC Asheville Fact Books: 2015-16, 2016-17, 2017-18, published online by the UNC Asheville Office of Institutional Research, http://ierp.unca.edu/fact-book.

Ward, L., Siegel, M.J., Davenport, Z., First Generation College Students: Understanding and Improving the Experience from Recruitment to Commencement, Josey-Bass Publishers - A Wiley Imprint, San Francisco, CA, 2012.
Tinto, V., Leaving College: Rethinking the causes and cures of student attrition, University of Chicago Press, Chicago, IL, 1987.
Tinto, V., Leaving College: Rethinking the causes and cures of student attrition (2nd edition), University of Chicago Press, Chicago, IL, 1993.
Tinto, V., "Classrooms as Communities: Exploring the Educational Character of Student Persistence", Journal of Higher Education, 1997, 68, 599-623.
Gerdes, H., Mallinckrodt, B., "Emotional, Social and Academic Adjustment of College Students: A Longitudinal Study of Retention", Journal of Counseling and Development, 1994, 72, 281-288.
Parker, J.D.A., Hogan, M. J., Eastabrook, J.M., Oke, A., Wood, L.M., "Emotional intelligence and student retention: Predicting the successful transition from high school to university", Personality and Individual Differences, 2006, 41, 1329-1336.
Jones, B.D., "Motivating Students to Engage in Learning: The MUSIC Model of Academic Motivation", International Journal of Teaching and Learning in Higher Education, 2009, 21.
Jones, B.D., Motivating Students By Design: Practical Strategies for Professors, CreateSpace Independent Publishing Platform, 2017.

Integrating Support for Faculty as Writers and as Teachers

Monique Dufour, Virginia Tech
Jennifer Ahern-Dodson, Duke University

In this interactive session, we explore how supporting faculty as writers can also help them to become more effective teachers of writing in their disciplines. Session leaders have facilitated and studied faculty writing retreats for over ten years. After briefly highlighting relevant results from these and other studies, we will guide participants in discovering for themselves how understanding and improving their own writing practices can spark insight into how they teach students how to write. Finally, we suggest how this case exemplifies a promising integrative approach to faculty development, one that leverages connections across faculty roles and responsibilities.

Faculty developers have increasingly addressed the needs of faculty as writers. After all, faculty writers, like students, need and deserve support in order to have meaningful, productive writing experiences (Belcher; Geller and Eodice; Elbow and Sorcinelli). Research on these strategies and programs have focused primarily on the extent to which they have increased academic publication rates and satisfaction. For instance, in a review of 17 studies, McGrail, Rickard, and Jones (2006) report that writing retreats, writing support groups, and writing coaches all increased faculty productivity. Research on writing retreats in particular suggests retreats increase motivation to write (Moore), foster a sense of community (Geller and Eodice), help faculty develop effective strategies, and enhance productivity (Murray and Newton).

However, the leaders of this session have discovered another powerful outcome of supporting faculty as writers: It can help them to become more effective teachers of writing. In this session, we will explore how faculty developers can help faculty make connections between how they approach writing, and how they teach their students to write. We will also discuss how this particular example models an integrative approach to faculty development, making connections between dimensions of faculty experience that are often siloed: their research and writing, and their teaching.

The leaders of this session have worked with faculty writers for over ten years, and have facilitated an annual, multi-institutional faculty writing retreat at Duke University. Through this extensive experience and through multiple studies, we learned that when faculty gain insight into their own difficulties with writing, we can help them to apply those insights to their teaching. In this session, we will share these insights from our IRB approved research. More importantly, we will engage participants in discovering first-hand how reflecting on their own challenges with writing can improve how they help students to become better writers. Finally, we will suggest how this particular issue exemplifies a model of integrative faculty development, one that participants may apply in their own institutional and professional contexts.

In this session, participants will:

- Gain a brief, useful overview of: (a.) the current state of research and practice in supporting faculty as writers; (b.) relevant findings from multiple studies that session leaders conducted of their retreats.
- Engage in a reflective exercise about their own writing experiences: Participants will recall a time when writing was especially difficult or challenging. As we process their reflections, we will discover some common challenges that arise in faculty writing, explore the surprising reasons for these challenges, and some powerful, simple ways to address them.
- Reflect on the connections between their own experiences as writers and their teaching of undergraduate and graduate students as writers. Participants will share some of their challenges and frustrations with student writers, and apply what they learned about how to improve their writing experiences to how teach, assign, and respond to student writing.
- Learn some concrete pedagogical approaches for applying these insights to their teaching of student writers in their own institutions and contexts.

Geller, A. E., & Eodice, M. (Eds.). (2013). Working with faculty writers. Utah State University Press.
Hjortshoj, K. (2001). Understanding writing blocks. Oxford University Press.

Moore, S. (2003). Writers' retreats for academics: Exploring and increasing the motivation to write. Journal of Further and Higher Education, 27, 333-342.
Sorcinelli, M. D., Gray, T., & Birch, A. J. (2011). Faculty development beyond instructional development: Ideas centers can use. To Improve the Academy, 30, 247-261.
Sword, H. (2017). Air and light and time and space: How successful academics write. Harvard University Press.
Tulley, C. E. (2018). How writing faculty write: Strategies for process, product, and productivity. Utah State University Press.

Mindsets and Messaging: Moving Past a Fixed Mindset

Audrey Dentith, Nancy Winfrey, North Carolina A&T University

It's not just personality, intelligence and talent that determine success and failure in our university classes! It's all about how we view ourselves and our students. Based on the seminal work of Carol Dweck, this session will illuminate the prevalence of a fixed mindset in universities and ways for faculty cultivate a growth mindset among their students. The session will initially gauge faculty knowledge of mindset psychology, offer a case study activity that offers remedies for moving beyond the fixed mindset and a practice activity that offers strategies that can be used immediately in the classroom.

It's not just personality, intelligence and talent that influences success or failure. It is also the way that people view themselves. People who have a fixed mindset believe that their abilities are etched in stone and are largely unchangeable. They believe that a person is born with certain innate qualities that explain their successes and failures. People with a fixed mindset experience limited successes and fewer failures. In a growth mindset, however, people believe that abilities are changeable. They see failure as a way to reset and think differently about how to move forward. People with a growth mindset are more likely to flourish because they actively seek opportunities to learn, stretch themselves and grow in new ways. Carol Dweck's groundbreaking research has shed light on the ways that mindsets can determine one's life successes and failures. In her book, "Mindset: The new psychology of success, she lays out her premises for success.

The premise inherent in the mindset argument is instructive for university professors. Not only can university professors teach in ways that exemplify a growth mindset, but they can also cultivate a growth mindset in their students.

In this practice session, the presenters will offer a brief example of how their own well-meaning statements and interventions actually did not promote a growth mindset in their students, despite the fact that they were aware of the concept and believed that they were doing and saying the right thing. There will be an initial assessment poll to gauge how much participants know about growth mindset by asking them to assign either a 'growth mindset' or 'fixed mindset' label to 5 separate statements. All of the examples are not easily categorized and are meant to challenge the assumptions we have about what makes a growth mindset different than a fixed mindset. After the poll, examples of successful people who practice a growth mindset will be given such as Kizzmekia Corbett: Harvard University Professor (and inventor of the Moderna Vaccine). A movie clip of her teachers' remarks will be highlighted.

Participants will then examine 3 short case studies which offer examples of fixed mindsets and the remedies for changing these attitudes. The examples which will be drawn from college populations might be considered best practices but are, in fact, practices that emanate from a fixed mindset. The focus will be on remedying fixed mindset thinking.

An accompanying handout will offer examples of what faculty can say to students to encourage a growth mindset. After reading these 5 statements, faculty will be put into small groups to share an incident, story or encounter in their experience that could be characterized as a "fixed mindset" approach. In their groups, they will redo that encounter to show how they or another person might promote a growth mindset in these exchanges.

For the final closing activity, the audience will determine how to 'remake' the presenters' initial statements to reflect a growth mindset.

Dweck, C. S. (2016). Mindset: The new psychology of success. New York: Ballantine Books.
Sumoreads. (2017). Summary of Carol Dweck's mindset: Key takeaways and analysis. Columbia, SC.

Project-based Learning Using the Collaborative Sociotechnical Innovation Model

Shahabedin Sagheb, Michael Kretser, Alkan Soysal, Amy Arnold, Katie Walkup, Jared Keyel, Robert Smith, Virginia Tech

The Calhoun Honors Discovery Program at Virginia Tech partners with professionals employed in the industry and non-profit sectors who offer real-world problems and timely feedback to learners enrolled in project-based, transdisciplinary studio classes. Created with the goal of developing holistic competencies within learners, the program's educational model develops collaboration, design thinking, systems thinking, rapid prototyping, collaboration, agility in complexity, and critical thinking. In this research session, the instructors of the course and supporting short courses share their findings from implementing and iterating the model.

The Calhoun Honors Discovery Program (CHDP) is a pilot comprised of a diverse faculty and diverse student body who work together with partners from the industrial and non-profit sectors for the sake of simulating the complex sociotechnical problems these upcoming professionals will face once they enter the workforce (Schon, 1987; Williams, 2019). The diversity and mix of majors in the small groups enables a realistic simulation of collaborative problem solving that we believe the learners will face during their careers. Industry and nonprofit partners from Boeing, General Electric, Caterpillar, Association for Financial Professionals, Ithaka S+R, and the Capital Youth Empowerment Program (CYEP) provide feedback as the students advance their ideas (Stoll, 2020).

To implement the type of education that better equips learners as they cross the bridge into their careers, a Collaborative Sociotechnical Innovation Model (CSIM) (Sagheb & Smith 2020) was developed using the design thinking model (IDEO, n.d.) as a foundation. The model provides four lenses through which students explore the problem space: desirability, feasibility, viability, and sustainability, which we will explain more in our presentation. In this process, learners are able to progress beyond traditional, multidisciplinary approaches by providing foundational concepts for non-majors in small, five-week blocks covering subjects in discourse, quantitative and computational thinking, social sciences, design and the arts, and humanities.

Although professors from other departments collaborated with industry leaders for the initial program design, the current CHDP faculty use multiple mechanisms for data collection as they work to iterate the use of the (CSIM) model(Richey & Klein, 2009). Similar to the Qui□es, Ford, Sego, and Smith study(1995-1996), we investigated the component variables. While we did not analyze data related to competencies until Fall 2021, we did gather data from multiple points from the onset.

In one-on-one settings with their advisors, students annually review their own performance by quantifying the number of hours of effort for various aspects of the program (topics such as asynchronous learning, communication between faculty and students, a sense of community, expectations, and teaching/learning pedagogy). Additionally, they provide critical feedback of the program under the promise of anonymity. The qualitative replies were coded and member-checked by the assessment team prior to presenting the findings with quantitative data to the director and faculty for improvement.

For the studio, the lead instructors collaborated with the lead assessor to develop a customized tool for summative evaluation. Additionally, the assessment team conducted semi-structured, qualitative interviews for 30 minutes with individual learners and focus group with the data as the basis for decisions to change coursework and the overall program. Beginning in year two, for the short courses, we used a formative assessment (Barron et al., 1998) to provide immediate feedback from learners to their instructors to address any immediate difficulties. Specifics from the data will be shared with the audience as well as outcomes.

Barron, B. J., Schwartz, D. L., Vye, N. J., Moore, A., Petrosino, A., Zech, L., & Bransford, J. D. (1998). Doing with understanding: Lessons from research on problem-and project-based learning. Journal of the learning sciences, 7(3-4), 271-311. https://doi.org/10.1080/10508406.1998.9672056

Britton, J. (1990). Research currents: second thoughts on learning. In M. Brubacher, R. Payne, R & K. Rickett (Eds.). Perspectives on small group learning: theory and practice, pp. 3-11. Oakville, Ont.: Rubicon Pub..

IDEO. (n.d). Design thinking defined. IDEO Design Thinking. https://designthinking.ideo.com/
Martinez-Cerda & Torrent- Sellens, J. (2019).In J. Keengwe, & R. Byamukama, (Eds.). Handbook of research on promoting higher-order skills and global competencies in life and work. Information Science Reference. https://doi.org/10.4018/978-1-5225-6331-0
Quinones, M. A., Ford, J. K., Sego, D. J., & Smith, E. M. (1995). The effects of individual **and transfer** environment characteristics on the opportunity to perform trained tasks. Training Research Journal, 1(1), 29-49.
Richey, R. C., & Klein, J. D. (2009). Design and development research: methods, strategies, and issues. Routledge.
Schon D. A. (1987). Educating the reflective practitioner: Toward a new design for teaching and learning in the professions (1st ed., Ser. The jossey-bass higher education series). Jossey-Bass.
Stoll, J. (2020 Nov 12). A Boeing exec's 20 million bet on teaching college students to think.
Sagheb, S. & Smith, R. (2020). The Collaborative Socio-technical Model. http://www.sagheb.net/discoverystudio-1.html
Williams, T. (2019). High-achieving inaugural co-hort set for Calhoun Discovery Program. News and Stories from Virginia Tech. https://vtx.vt.edu/articles/2019/06/unirel-cdpfirstcohort.html

Relationship of Deep Learning with Student Satisfaction and Employability Skills

Madhu Kapania, Appalachian State University

This study explores the relationship of deep approaches of learning (DAL) with the student satisfaction and perceived student employability skills of undergrads in STEM fields. The findings from this study will be useful for the American higher education to re-examine the important function of student employability skills and student satisfaction from their education.

This practice presentation will explore the relationship of Deep Approaches to Learning (DAL) with college students' satisfaction and perceived employability skills in the field of Science, Technology, Engineering and Mathematics (STEM). The findings from this study will also investigate whether there is difference in STEM and non-STEM studies on the relationship of DAL to student satisfaction and students' perceived employability skills at higher education. It can further shed a light on why the difference in patterns exist and can give direction on how teaching and learning can be improved in STEM and non-STEM fields. The presentation will be on the background, previous measures, research question, purpose of the study, the study's rationale and research methodology.

The Higher Education Institutions (HEI) today bear the responsibility to teach their students not only to become expert in their particular disciplines, it also is to help them with lifelong learning skills that would help in their professional careers (Asikainen & Gijbels, 2017). The lifelong learning skills such as creative thinking and problem solving have become the main focus of HEI for the current generation (Dolmans et al., 2016). In order to reach these goals, higher education expects students to engage in deep learning approaches that involves meaning and reasoning to the learning instead of just repeating knowledge (Asikainen, 2014).

Brownell & Swaner (2009) cited Kuh's (2008) statement that freshmen and seniors who took part in activities such as first-year seminars, learning communities, service learning, study abroad, student-faculty research, senior culminating experiences, and project collaboration described greater benefits in learning and their character enhancement. These benefits included DAL concepts that consists of "integrating ideas and diverse perspectives, discussing ideas with faculty and peers outside of class, analyzing and synthesizing ideas, applying theories to practice," respecting others as well as their own opinions on information topics, and different perspectives (p.26).
Purpose and Research Question:

This study explores the relationship of deep approaches of learning (DAL) with the student satisfaction and perceived student employability skills of senior students in STEM fields. The findings from this study will be useful for the American higher education to re-examine the important function of student employability skills and student satisfaction from their education.

The following research questions will be discussed:

- Is there a relationship with Deep Approaches to Learning (DAL) activities with student satisfaction and perceived employability skills of senior undergraduates from STEM programs?
- Does the relationship between Deep Approaches to Learning (DAL) activities and student satisfaction & perceived employability differ between STEM and non-STEM students?
- A Structural Equation Modeling (SEM) will be used to investigate the tentative model.

Student Anxiety, Learning, and Cognition Without a Final Exam

Colin Chesley, Datona State College
Jennifer Hunt, East Tennessee State University

Students sometime opine that the absence of a final exam in a class would lower their stress levels and thus lead them to relax, listen, and learn better throughout the semester. This quasi-experimental research seeks to understand if the lack of a final formal assessment lowers student anxiety and stress and increases overall cognition. The researchers taught the same courses over 2 separate semesters with a control group that took a final exam and an experimental group that did not. Both groups received a post-assessment 2 months following the course. Stress was measured using the Perceived Stress Scale.

Assessing student learning is a primary component of all teaching and learning (Agenlo & Cross, 1993). Without a formal assessment of some kind, it would be difficult to ascertain if the students really know the critical material or are able to perform the skills that have been taught (Wiggins & McTighe, 2005). Many factors impact the efficacy of final assessments, including whether they were high stakes assessments (Amrein & Berliner, 2003; Cole & Osterlind, 2008), whether there was an absence or presence of intrinsic or extrinsic motivators (Hancok, 2007; Sansone & Harackiewicz, 2000), and whether or not stress played a role (Chapell, et al., 2005; Gharib & Phillips, 2013; Pandey & Kapitanoff, 2011).

In the spring of 2016, the researchers had the opportunity to design a new course for a program at a mid-level regional university. Because the course was 1 credit, it was decided to forgo a final cumulative exam. Over the semesters that the course was taught, students often self-reported increased learning and retention and lower stress because of the lack of a final assessment. Using a quasi-experimental design, in the fall of 2018 and 2019 the researchers used a 3-credit hour course from the same program and university and divided the semesters into a control group and an experimental group. The control group took the course in the fall of 2018 and were administered the final cumulative assessment as normal, whereas the experimental group in the fall of 2019 did not receive the final cumulative assessment. Both groups received the Perceived Stress Scale (Cohen, Kamarck, & Mermelstein, 1983) during the semester to measure the impact of the final cumulative assessment specifically. Finally, both groups received a post-assessment about the course material 2 months after the conclusion of the course to measure knowledge retention.

The researchers have concluded that while perceived stress levels were lower in the experimental group, the final course grade and the post-assessment grade was higher for students in the control group, suggesting that the use of final assessments in a course do improve student learning, cognition, and overall retention, further validating other findings suggesting that testing as a pedagogical strategy increases learning (Lang, 2013). However, it was noted that the experimental groups final project was much higher quality than the control group. They demonstrated a deeper understanding of the concepts of the course overall and were better prepared to answer questions, even though the overall final grades were lower.

Angelo, T.A., & Cross, K.P. (1993). Classroom assessment techniques: A handbook for college teachers (2nd ed.). San Francisco: Jossey-Bass.
Amrein, A., & Berliner, D.C., (2003). The effects of high-stakes testing on student motivation and learning. Educational Leadership, 80 (5), 32-38.
Chapell, M.S., Blanding, Z.B., Silverstein, M.E., Takahashi, M., Newman, B., Gubi, A. et al. (2005). Test anxiety and academic performance in undergraduate and graduate students. Journal of Educational Psychology, 97(2), 268-274.
Cohen, S., Kamarck, T. & Mermelstein, R. (1983). A global measure of perceived stress. Journal of Health and Social Behavior, 24(4), 385 - 396.
Cole, J.S., & Osterlind, S.J. (2008). Investigating differences between low-and high-stakes test performance on a general education exam. The Journal of General Education, 57(2), 119-130.
Gharib, A., & Phillips, W. (2013). Test anxiety, student preferences and performance on different exam types in introductory psychology. International Journal of e-education, e-business, e-Management and e-Learning, 3(1), 1-6.
Hancok, D.R. (2007). Effects of performance assessment on the achievement and motivation of graduate students. Active Learning in Higher Education, 8(3), 219-231.

Lang, J.M. (2013). Cheating lessons: Learning from academic dishonesty. Cambridge, MA: Harvard University Press.
Pandey, C., & Kapitanoff, S. (2011). The influence of anxiety and quality of interaction on collaborative test performance. Active Learning in Higher Education, 12(3), 163-174.
Sansone, C., & Harackiewicz, J.M. (2000). Intrinsic and extrinsic motivation: The search for optimal motivation and performance. Sandiego, CA: Academic Press.
Wiggins, G. & McTighe, J. (2005). Understanding by design (2nd ed.). Saddle River: Pearson.

Student use of ratemyprofessors.com to memorialize professors who have died

Christopher Seitz, Appalachian State University
Muhsin Orsinin, consultant

This study explored the characteristics that students memorialize on ratemyprofessors.com regarding professors who have died. In November 2020, ratemyprofessors.com was searched using the terms "RIP" and "passed away," which retrieved 726 comments about 383 professors. During qualitative analysis, four major themes emerged from the data: Pedagogy (students appreciated their professors' teaching abilities), Passion (students were inspired by professors' passion for academic disciplines), Care (students expressed gratitude for professors who were caring), and Happy (students remembered professors who had positive, humorous attitudes). The study's implications for leaving a lasting legacy in the hearts of students will be discussed during the presentation

Introduction:
Online memorials through social media (i.e., Facebook) and other websites (i.e., Legacy.com) have become commonplace in society. Anecdotal evidence suggests that ratemyprofessors.com (RMP) has also been used as a platform for students to memorialize professors who have died. To the authors' knowledge, there has been no research on RMP regarding this topic. As such, the purpose of this study explored common characteristics that are memorialized by students on RMP regarding professors who have died.

Methods:
In November of 2020, an advanced, systematic search of RMP was performed using the search terms "RIP" and "passed away." The search retrieved 726 student comments about 383 professors. Individual comments were considered the unit of analysis for the study. Researchers were immersed in the data by reading the comments several times during and after data collection. Then, the authors worked together to identify and refine the overarching themes that emerged from the comments.

Results:
Four major themes that came from the data: (1) Pedagogy (students appreciated their professors' teaching abilities), (2) Passion (students were inspired by professors' passion of academic disciplines), (3) Care (students expressed gratitude for professors who were caring), and (4) Happy (students remembered professors who had positive, humorous attitudes).

Conclusion:
By learning what students remember and value about their former professors who have passed away, we can make a conscious effort to incorporate those characteristics into our classrooms and cultivate meaningful relationships with students that leaves a lasting legacy in the hearts and minds of students.

Angelo, T.A., & Cross, K.P. (1993). Classroom assessment techniques: A handbook for college teachers (2nd ed.). San Francisco: Jossey-Bass.
Amrein, A., & Berliner, D.C., (2003). The effects of high-stakes testing on student motivation and learning. Educational Leadership, 80 (5), 32-38.
Chapell, M.S., Blanding, Z.B., Silverstein, M.E., Takahashi, M., Newman, B., Gubi, A. et al. (2005). Test anxiety and academic performance in undergraduate and graduate students. Journal of Educational Psychology, 97(2), 268-274.
Cohen, S., Kamarck, T. & Mermelstein, R. (1983). A global measure of perceived stress. Journal of Health and Social Behavior, 24(4), 385 - 396.
Cole, J.S., & Osterlind, S.J. (2008). Investigating differences between low-and high-stakes test performance on a general education exam. The Journal of General Education, 57(2), 119-130.
Gharib, A., & Phillips, W. (2013). Test anxiety, student preferences and performance on different exam types in introductory psychology. International Journal of e-education, e-business, e-Management and e-Learning, 3(1), 1-6.
Hancok, D.R. (2007). Effects of performance assessment on the achievement and motivation of graduate students. Active Learning in Higher Education, 8(3), 219-231.
Lang, J.M. (2013). Cheating lessons: Learning from academic dishonesty. Cambridge, MA: Harvard University Press.

Pandey, C., & Kapitanoff, S. (2011). The influence of anxiety and quality of interaction on collaborative test performance. Active Learning in Higher Education, 12(3), 163-174.
Sansone, C., & Harackiewicz, J.M. (2000). Intrinsic and extrinsic motivation: The search for optimal motivation and performance. Sandiego, CA: Academic Press.
Wiggins, G. & McTighe, J. (2005). Understanding by design (2nd ed.). Saddle River: Pearson.

Student-mediated learning: Supporting the development of self-regulation in undergraduates

Stephen Rutherford, Cardiff University

Effective 'self-regulated' learning (SRL) is fundamental to Higher Education, but challenging for students to develop. This study aimed to identify factors influencing students' development of SRL through university. A longitudinal, interview-based, qualitative study followed undergraduate students over 3-4 years of their degrees. Data were analyzed using Constructivist Grounded Theory and Situational Analysis. Four themes emerged: Adaptation of 'Personal Learning Strategies'; development of 'Personal Learning Networks'; understanding academic/discipline conventions; remodelling academic/personal identities. The significance of social interactions in SRL development infer 'student-mediated' learning, encompassing active moderation of influences/impacts of others. Supporting student-mediated learning has implications for teaching approaches.

Background: The capacity for effective independent 'self-regulated' learning (SRL) is fundamental to Higher Education, but is a skill that undergraduate students often struggle to develop (1). Transition from a teacher-focused educational environment at school, to a student-centred environment at University is challenging, requiring students to revise and realign educational approaches they previously adopted in secondary education (2). Students also need to embed themselves within a subject discipline with its own conventions and expectations. In addition, the transition from one educational level to another is also challenging, requiring rethinking cognitive and metacognitive strategies as expectations of different academic levels change (3). This study aimed to identify key influences on students' ongoing development of SRL skills

Methodology: This research was a longitudinal study of 22 undergraduate students in science, humanities and clinical courses, as they progressed though 3 or 4 years of their undergraduate degree courses. Students participated in individual open intensive interviews twice per year (three times in year 1). Transcript data were analysed using Constructivist Grounded Theory (4) and Situational Analysis (5).

Results: Four major themes emerged from the analysis:
The development and refining of Personal Learning Strategies (PLS), whereby participants changed their study approaches in response to their changing academic environment, was strongly influenced by peer interactions.

However, participants showed that they had determined an idealised PLS before arriving at University, and adapted their PLS to suit changing requirements of their course.

Peer interactions were fundamental to the development of study approaches, and participants each developed a Personal Learning Network (PLN; (6)). This PLN changed as they progressed through their studies, especially those students involved in clinical or industrial placements. Participants usually formed part of the PLN of others, undertaking roles appropriate to their skill set.

Learning the conventions of the discipline was challenging for the participants. Appreciating the rationale behind certain teaching and assessment practices took variable lengths of time between individuals. Interactions between different social worlds and social arenas (5) influenced participants' rate of understanding 'the rules of the game' for university study, and their discipline.

Changing identities were common throughout the development of the participants. In particular the presence, or lack, of a clear professional outcome to their degree impacted on their perceptions of themselves and their role as a student. Participants in clinical or industrial-facing courses were more inclined to view themselves as fledgeling participants in a community of practice.

Discussion: The strong influence of social interactions, especially those or social and academic peers, suggests a high level of influence of others on the development of SRL. These findings suggest a concept of 'student-mediated' learning, which includes active moderation of the influence and impact of others, as well as SRL, which is primarily individual and internalized in nature. These findings have implications for the way educators in HE support and guide students. Effective learning and assessment activities encouraging active inquiry, collaborative discussions,

and the opportunity to challenge self-perceptions of learning strategies could help empower students to gain independent learning skills.

(1) Bjork, R. A., Dunlosky, J., & Kornell, N. (2013). Self-regulated learning: beliefs, techniques, and illusions. Annual Reviews in Psychology, 64, 417-444
(2) Briggs, A. R. J., Clark, J., & Hall, I. (2012). Building bridges: understanding student transition to University. Quality in Higher Education, 18(1), 3-21.
(3) Matheson, R. (2018). Transition through the student lifecycle. In R. Matheson, S. Tangney, & M. Sutcliffe (Eds.), Transition in, through, and out of Higher Education (pp. 5-16). Abingdon: Routledge
(4) Charmaz, K. (2014). Constructing Grounded Theory (2nd ed.). Los Angeles: Sage.
(5) Clarke, A. E. (2005). Situational Analysis: Grounded Theory after the Postmodern turn. Thousand Oaks, CA: Sage.
(6) Richardson, W., & Mancabelli, R. (2011). Personal Learning Networks: Using the power of connections to transform education. Bloomington, IN: Solution Tree Press.

Students as Partners: Building Learner Success Tools in Your Course

Chaya R. Jain, Leslie Y. Whiteman, Cheryl P Talley, Brian L Sayre, Virginia State University

This NSF-funded two-phased research study examines a key aspect of the Scholarship of Teaching and Learning (SoTL) theory: engagement of students as learning partners. A causal-comparative investigation, it tests a holistic intervention to improve learner performance at a Historically Black College and University (HBCU). The first phase involves faculty training incorporating diverse instructional methods to increase student engagement. The second-phase focuses a holistic intervention targeting student accountability and partnership called "Grandma's Recipe" to help increase learner performance. The aim of this three-year study is to determine the efficacy of the approach as a generalized pedagogical model for cross-discipline implementation.

Literature Review

Felten (2013) identifies five SoTL 'good practice' principles; inquiry focused on student learning, grounded in context, methodologically sound, conducted in partnership with students, and appropriately public. Psychologists and contemporary pedagogy theorists (Biggs 1999, Bloom 1953, Bruner 1961, Piaget 1950, Vygotsky 1978) have articulated that as a contextualized action, learning is an active process of constructing knowledge. Yet others (Apple 1992-present, Dweck 2006, McGuire 2018) have researched, tested and analyzed multiple elements including metacognition, growth mindset, and layered learning techniques to pique learner participation through engaged, accountable partnership, the focus of our undertaking.

Research Methodology

This research study investigates the cause-and-effect relationship between the experiment and control group of learners using "Grandma's Recipe" (GR) as the intervention that integrates a holistic technique to engage student partnership and accountability in increasing learner achievement.

The research question, "Does faculty partnership with learners result in students' higher academic achievement?" leads to the hypothetical assumption that faculty partnership with students does result in higher academic achievement, where:

- Independent Variable = method of learning (GR as intervention)
- Dependent Variable = Academic achievement
- Control Variables = Semester duration, semester start/stop dates, race, gender

The second phase of the study involves an initial target population of 250 STEM students along with an end-of-semester survey establishing the sample population from those using the GR intervention. Faculty will present and encourage student adoption of GR at key time-periods, i.e., at the beginning, after the first exam, and at midterm. Data will consist of students' academic performance for comparison with those who indicated they used GR versus those who did not. Semester scores will serve as a measure to compare both groups' achievements for analysis and determination of significance using a t-test analysis.

Discussion

The first phase of this two-phased approach involved institution-wide recruitment of volunteers for a pilot program to develop the initial Metacognitive Community of Practice with consultants training 25 volunteer faculty over a two-day period. Subsequently, competition-based selection of a five-faculty cohort began collaborating with PI/Co-PIs in combining Project Knowledge, Supplemental Instruction, and Process Education with GR as the intervention technique. GR integrates Bloom's taxonomy, metacognition, growth mindset, positive emotions and motivation, emphasizing student accountability through a layered method of learning. Engaging train-the-trainer concept in May 2021, the initially trained cohort helped recruit an additional ten-faculty cohort. The AY 2021-2022 plan focuses incorporation of GR in cohorts' classroom instruction along with data collection of students' academic performance in both, the experiment and control groups.

Outcomes from this research are expected to indicate that students who engaged and adopted GR, either in part or as a whole, will perform to a greater academic level than those who did not. Since the NSF grant was secured prior to the COVID-19 pandemic, the unforeseeable constraints could not be envisioned. While each phase of the project obligates adjustments as appropriate, the findings will offer full impact of constraints including those from the virtual learning modality. On the other hand, the findings also promise additional possibilities for further research.

Apple, D. K., Ellis, W., & Hintze, D. (2016). 25 years of Process Education. International Journal of Process Education, 8 (1). Available at: www.processeducation.org/ijpe/2016/25sm.pdf
Biggs, J. B. (1999). Teaching for Quality Learning at University: What the Student Does. Philadelphia: Society for Research into Higher Education: Open University Press.
Bloom, B. S. (1956). Taxonomy of educational objectives: The classification of educational goals. New York: Longmans, Green.
Bruner, J. S. (1961). The act of discovery. Harvard Educational Review 31 (1): 21-32.
Dweck, C. S. (2006). Mindset: The new psychology of success. New York: Random House.
Fallen, P. (2013). Teaching & Learning Inquiry: The ISSOTL Journal, Vol. 1, No. 1 (2013), pp. 121-125.
McGuire, S. Y. (2018). Teach Students How to Learn. Stylus.
Piaget, J. (1950). The Psychology of Intelligence. New York:Routledge.
Vygotsky, L. S. (1978). Mind in society: The development of higher psychological processes Cambridge, MA: Harvard University Press.
Acknowledgments:
1. This research is partially supported by the National Science Foundation Education and Human Resources (IUSE: EHR) Award: STAR (Successful Transition to the Academic Realm) Program 2.0 at VSU (Award ID 1915022).
2. The presenters wish to thank their VSU peer faculty from Cohort One: Dr. Cheryl Adeyemi, Dr. Paul Kaseloo, Dr. Kenneth Lewis, Dr. Cecil Morris, Dr. Grace Ndip, as well as Dr. Rosianna R. Gray, University of Alabama at Birmingham, for her student engagement technique called "Grandma's Recipe."

The Invisible Student: Retaining Minority Males in Higher Education

Jill Wendt, Arizona State University

This session will examine and address problems with minority student persistence within higher education. Presenter will facilitate a discussion on strategies for engaging minority male students for the purpose of learning about one another's perspectives in order to support the students involved to achieve higher levels of ' persistence & academic achievement. Theoretically using Critical Race Theory to understand the "voices" of student experiences. The session will highlight strategies used to build sustainable programs and mentorship opportunities in working with minority male students and highlight some issues related to the transfer student experience into a 4 year university.

The Invisible Student: Retaining Minority Males in Higher Education

Abstract: Disparities exist among minorities in educational attainment. The gap widens when examining access to higher education and persistence rates among minority males as compared to their white counterparts and minority females. The purpose of this action research study was to explore the impact of a reciprocal mentoring model between faculty and minority male students in an effort to examine the effects on student persistence and the students' academic experience. The researcher attempted to examine mentoring relationships, the process of reciprocal mentoring, and the effects on persistence and the students' academic experience for the purpose of learning about one another's perspectives. This study investigated minority male persistence within Chandler-Gilbert Community College (CGCC). Persistence was defined as a student who enrolled during the fall 2013 academic semester and continued at the same institution or transferred to another two-year or four-year institution working on degree completion. The author used a mixed methods design and used Critical Race Theory (CRT) as the theoretical framework by which to examine issues pertaining to minority male student perspectives and experiences. The results yielded eight assertions related to minority male retention and persistence. Keywords: minority males, community college, persistence, reciprocal, mentoring, retention, Critical Race Theory

Literature Review

Community colleges are institutions that attract minority male students for multiple reasons including lower tuition rates, open access and a variety of academic and job certification options. In many cases these minority male students are largely ignored and often invisible to the community college faculty, staff, and administrators (Levin, 2003; Strayhorn & Terrell, 2007). Costner, Daniels, and Clark (2010) purport that if the post-secondary educational system wants minority male students to succeed, it must not only look to the students to change but also for the faculty to examine the attitudes they hold that serve to disenfranchise minority students. Irvine's (1990) research further explores the reluctance of faculty to acknowledge issues like race and ethnicity, discouraging dialogues about race-related issues resulting in a cultural disconnect with the students. Costner, Daniels, and Clark (2010) assert that when faculty members do not embrace the cultural richness that exists within minority students, they fail to recognize the benefits of these diverse perspectives thus limiting the curriculum to that of the dominant culture. One theory used within the field of education that examines race is Critical Race Theory (CRT). This analytical framework seeks to challenge racist ideologies and identify racial inequalities in educational achievement. CRT scholars assert that through narratives or storytelling, complex issues related to race are captured by the "voice" of study participants. Reynolds (2010) states that there is a substantial need to approach issues of racism and asserts that by using CRT an educational theory, the result would be an analysis that provides a richer understanding, critical insight and interventions that are culturally sensitive.

Costner, K. L., Daniels, K., & Clark, M.T. (2010). The struggle will not continue: An examination of faculty attitudes toward teaching African American students. Journal of Black Studies. 41(1), 40-5. doi: 10.1177/0021934708328428, http://jbs.sagepub.com/content/41/1/40. Irvine, J. J. (1990) Black students and school failure: policies, practices, and prescriptions. (New York, Praeger). Levin, J. S. (2003, November). Beyond the margins: Community college students outside the mainstream [Paper Presentation]. Portland, OR: Association for the Study of Higher Education.

Reynolds, R. (2010). "They think you're lazy," and other messages black parents send their black sons: An exploration of critical race theory in the examination of educational outcomes for black males. Journal of African American Males in Education, 1(2), 144-163.

Strayhorn, T. L., & Terrell, M. C. (2007). Mentoring and satisfaction with college for Black students. The Negro Educational Review, 58(1-2), 69-83.

The Student Experience Project at Charlotte

Dave Frantzreb, University of North Carolina, Charlotte

The Student Experience Project (SEP) is a collaboration of university leaders, faculty, researchers and national education organizations committed to innovative, research-based practices in the classroom across 6 urban serving universities. Over the past two-years, we have expanded interventions across STEM and non-STEM classrooms to remove stereotype threats by attuning faculty messaging that signal a growth mindset and a sense of belonging through a continuous improvement mode. This session will give an overview of research, examples of faculty interventions, and the use of CoPilot-Ascend as the survey tool used in the SEP project at the University of North Carolina at Charlotte.

The SEP project at Charlotte aims to improve the student experience by creating learning environments that are designed to promote a sense of belonging and support student learning. Research has shown that students are more likely to be successful in the class and persist throughout college when negative structural and identity cues are removed from the classroom experiences (Murphy & Destin, 2016; Steele, 1997; Walton et al., 2015). The goal of this interactive presentation is to illustrate how small changes from the instructional side can increase student engagement and overall sense of belonging in a class and major. With many of the conversations around diversity, equity, and inclusion, this project is able to give faculty actionable tools, resources, and data to improve equity gaps for structurally disadvantaged students based on race/ethnicity, gender, and financial needs by helping to remove barriers.

The first 15 minutes will be used to briefly cover the research and theories behind the five core concepts addressed in the faculty training and development: identity safety, institutional growth mindset, self-efficacy, social belonging, and trust and fairness. The next 15 minutes will be used to explore examples of faculty group work and activities used in preparing interventions for their classrooms. For example, a brief syllabus workshop looking at examples of fixed vs growth mindset messaging, and other examples with exclusionary or negative stereotype cues that impact marganziled students. Other activities will focus on creating wise feedback statements, the use of belonging stories, and course policies and procedures.

To illustrate the continuous improvement model, the next ten minutes will be an overview of the survey instrument created by PERTS, and how to use the data to make changes to improve the student experience in the class. There will also be examples of data reports from STEM courses from the 2020-21 school year. These reports will highlight struggles within classrooms and examples of interventions faculty used throughout their courses.

Murphy, M.C. & Destin, M. (2016). Promoting Inclusion and Identity Safety to Support College Success. Report prepared for The Century Foundation College Completion Series.

Steele, C. M. (1997). A threat in the air: How stereotypes shape intellectual identity and academic performance. American Psychologist. V52(6).

Walton, G. M., Logel, C., Peach, J., Spencer, S, & Zanna, M. P. (2015). Two brief interventions to mitigate a "chilly" climate transform women's experience, relationships, and achievement in engineering. Journal of Educational Psychology, 107, 468-485.

Unique Studio-based Model in Construction Management Education

Saeed Rokooei, George Ford, Mississippi State University

This paper briefly presents the results of the first two stages of a study focusing on the studio-based model for construction education. The study was initiated to explore various aspects of the studio-based and project-based approach employed in the Building Construction Science (BCS) Program at Mississippi State University (MSU). BCS is one of the only two programs in the U.S. that has adopted this model. Although employers and students expressed their positive feedback toward the suitability of this model for construction education, various aspects of the "construction studio" are not fully explored, which will be discussed in this paper.

Studio-based learning is growing as a practical pedagogy in various areas. The studio-based model has a root in art-based programs such as art, interior design, and architecture for several decades, but it is finding its own place in some other fields such as construction engineering and management programs. In this model, the curriculum is structured to achieve course and program learning outcomes through individualized instruction. There are various factors that facilitate the achievement of the educational model objectives, such as low student-to-teacher ratios, lower number of students per section, hands-on, integrative application of knowledge and experience, and iterative processes. These factors are prioritized over some commonly considerable criteria such as high space and seat utilization rates, high number of students enrolled in a section, and more uniform teaching approaches, which all are typically driven by economic goals. In any new construction curricular model, the extent to which students, instructors, collaborators, and employers perceive different educational components greatly impacts students learning outcomes, and hence it directly affects the new model's success. Various studies suggest that stakeholders' perceptions positively--and negatively--affect learning. These factors include a vast area of subjects and contexts, including physical and cognitive aspects. In this scope, students' perceptions about the physical characteristics of the space (i.e., studio) in which education occurs and the education settings considerably influence students' performance. Therefore, exploring these perceptions is beneficial to educators to periodically monitor the flow of the educational process and ensure students perform as expected and the educational programs are on the right track toward their goals.

This paper sheds light on different aspects of the studio and discusses its features, and highlights students' and professionals' perceptions toward these various studio aspects. In the first phase of the study, a quantitative method was used to gather data and categorize factors that affect student perception. In the next stage, a similar approach was used to obtain data regarding construction professionals' perceptions toward different physical and cognitive aspects of the project-based studio model in construction. Results of the research demonstrate that both cognitive and physical aspects of studios in a construction project-based curriculum at Mississippi State University appear to have a positive impact on student performance. The outcomes of this study can be applied to and incorporated in designing and implementing studio- and project-based construction education as well as this learning model in other disciplines. In general, exploring the perception of all parties involved in a studio model, including students and professionals, helps construction educators and administers to gain a more realistic and efficient understanding of a studio-based education model, which, in turn, can be employed as a new and emerging learning method in the construction education area. Although generalization of results needs further studies and explorations with a larger sample, the results of this research can be considered as a starting point for planning and development of studio-based construction programs.

POSTER SESSIONS

Assessing the Assessment: Lessons Learned from the CAEP Accreditation Process

Melissa Comer, Nancy Kolodziej, Tennessee Tech

Accreditation is a means of quality assurance that indicates that a university/college and/or its programs has met and maintains a high level of standards established by accrediting councils and professional organizations. The Council for the Accreditation of Education Preparation (CAEP) is an "agency that accredits educator preparation providers (EPP)" that provide programs leading to teacher certification, licensure, or endorsement (CAEP, 2020, Letter C section). To achieve or to renew accreditation, EPPs must generate a self-study report, proving that each of the five CAEP standards is met. Because our literacy program was applying for accreditation renewal, writing the self-study report prompted us to engage in action research, conducting an in-depth, multi-faceted exploration of our program, resulting in multiple lessons. This presentation will address three lessons:

1. Charting the waters. To determine the best matches for each criterion of the standards, we created a chart listing the indicators of each of the CAEP standards in its columns and our courses in its rows. In the cells, we listed assessments as evidence to support how our program addresses that standard. Initially, we drafted the table to help us write our report; however, we recognized that it could be used for ongoing self-assessment and as a springboard for subsequent accreditation processes. Session attendees will have access to the chart.
2. Align each assessment with standards and your grading scale. Though designed with the standards in mind, we failed to list them directly on assignment guidelines or rubrics. The omission of the standards from these pieces proved to be an issue. We learned that just because we knew the connection of the standards to assessment pieces, our candidates may not. Promoting transparency, we are revising all pieces to include standards so that there is no question concerning standards and their connection to our assessments. Another major advantage of taking the time to do this on the front-end is that it will help streamline our next accreditation visit. We will be able to speak to the association of the assessments with the CAEP standards without having to conduct an intensive search to match them. To facilitate attendees' ability to implement this "lesson," we will provide example assessments.
3. Create and maintain a database of exemplar assessments. Throughout the process of working on the CAEP report, we had to support various components, (i.e., assessments) within our program and courses with exemplars, or, as Newlyn (2013) describes, "past work completed by former students who have undertaken work of a specified quality" (p. 26). On the surface, this sounds relatively easy. Unfortunately, this was not the case. We had to search through three years of candidates' work, looking for the perfect examples to showcase knowledge of a particular literacy concept and/or ability to apply it. This took a great deal of time and attention to detail. To prevent this situation from happening again, we designed a system for the identification, storage, and retrieval of student exemplars. Attendees will have access to our system for duplication purposes.

Blended, Online, or Hybrid: Did it make a difference?

Sara Lenhart, Christopher Newport University

Theoretical Foundations for Elementary Mathematics is a 100-level pre-requisite course for students planning on applying for the 5-year Masters of Teaching program at the researcher's university. It takes a pedagogical approach to the math content taught in K-6 classrooms. It has always been a Tuesday/Thursday class since the professor starting teaching it, and it is offered in the spring with two sections. It has taken many formats through the years; but, after some research and a new interactive text, blended is the preferred format of the professor. The course was taught as a blended classroom for one full semester in 2018. In 2019, the instructor was forced to make the course online for half the semester because the college shut-down because of the coronavirus. The course had to be offered as hybrid the next year so that quarantined students would not get behind. This study examines student pre-tests and post-tests for three differently formatted semesters to see if there was an impact on student learning.

Co-Teaching Instructional Design: Experiences in Graduate Student Professionalization

Rebecca Clark-Stallkamp, Alicia Johnson, Virginia Tech

Bacharach et al. (2010) argue the increased diversity in today's education systems mean "learning to teach in isolation should no longer be an unquestioned practice" (p. 3). Co-teaching is a collaborative pedagogical approach transcending the isolation of teaching which is often overlooked in traditional one-to-many model institutions. Co-teaching, commonly defined as two or more instructors planning, developing, and instructing, and evaluating together (Backarach et al., 2010), promotes a dynamic social partnership in a collaborative learning process for all co-teachers and their respective students. Historically, co-teaching has been most prevalent in P-12 settings or special education. Developed in the 1980s, co-teaching models were primarily used to support mainstreaming students (Rabin, 2019). Given the current educationally diverse contexts, co-teaching may afford a pedagogical shift in providing diverse learning opportunities. Co-teaching can enhance the learning experience for students (Harter & Jacobi, 2018) as well as enhancing student interest and participation while allowing for ample feedback and support (i.e. receiving instruction from multiple perspectives) (Friend, 2014, 2015; Kohler-Evans, 2006). Co-teaching fosters authentic learning and reflection for the co-teachers involved (Friend, 2014, 2015l; Harris & Harvey, 2000). Co-teaching with a student (or student teacher) can promote co-creation in course design bringing more of the student voice and perspective into the course design and teaching practice (Sileo, 2011). Co-teaching with a senior student can also encourage a social learning environment which suggests learning occurs in a social environment through the observation of others (students are able to observe behavior from a "similar other") (Bandura, 1977; Patel & Kramer, 2013; Shteynberg & Apfelbaum, 2013). More recently, researchers recognize growing opportunities for co-teaching in pre-service teaching, faculty professional development, and the professionalization of graduate students attempting to enter the teaching profession. However, a paucity of research exists on the experiences of professional development for faculty and more specifically, graduate student co-teachers (Burns & Mintzberg, 2019). This roundtable discussion explores the dynamics of co-instruction from the perspective of a teaching dyad. Consisting of an experienced professor of instructional design and technology and a PhD candidate seeking professionalization opportunities in teaching, the dyad will start the conversation with a brief explanation of why co-teaching appealed to both and an explanation of the teaching experience including course development and lessons learned. The experiences are aimed to prompt discussion amongst session participants about a place for co-instruction in higher education - its purposes, benefits, and challenges.

Correspondence Plus: Old Delivery Models, New Technology, and Incarcerated Education

Matthew Luckett, California State University - Dominguez Hills

The California University Dominguez Hills (CSUDH) Humanities Master of Arts External Degree (HUX) program has a nearly 50-year track record of delivering graduate education leading to the Master of Arts degree. Its reputation as a pioneer and highly regarded distance program is well established. The original program has been on "teach out" for several years. In this current moment of invigorated social justice momentum, we are revamping our program and renewing our offerings focusing on an incarcerated demographic. The program has a great deal of experience dealing with the challenges of serving incarcerated students who, in many instances, can only communicate through hard copy correspondence. However, with the California Department of Corrections and Rehabilitation's recent announcement that all inmates who are enrolled in higher education programs will have tablets, laptops, and WiFi access by 2023, the course delivery challenges are now more vertical than ever: some American inmates will have computers and Internet, while others will be limited to pencils, paper, and pre-printed course materials. Moreover, some students with technological access may end up losing it before the end of the program, either because they are transferred to different institutions or blocks, or because the security personnel in their institutions dictate otherwise. Since the need for an incarcerated graduate program in the humanities is both pressing and not sufficiently sustainable to be easily replicated (due to the low percentage of inmates with a Bachelor's degree), our challenge is to create a program that is pliable enough to meet all of our students needs through both correspondence and online hybrid course modalities. Our poster will outline our solution: Correspondence

Plus: all of our classes will be initially developed as full correspondence, and will then be subsequently redeveloped and adapted to include asynchronous activities, direct communication with instructors and classmates, and even viewing materials. We will effectively run two parallel programs at once, with each class offering a correspondence and hybrid section. This is what the Legacy HUX program began doing about ten years ago as its faculty increasingly embraced new instructional technologies without triggering a new course development process. We also believe that the Correspondence Plus model will both improve and mitigate the weaknesses of a pure correspondence program, which has been rendered all but obsolete. Although our goal is to employ the Correspondence Plus model in the limited context of providing a continuous, uninterrupted educational experience to incarcerated learners regardless of their institution's security protocols or educational resources, we believe it will also be applicable to a wider population of learners with sporadic or nonexistent technological access. These populations include undergraduate inmates without access to on-the-ground degree programs, learners in rural and remote areas, and students in countries with unreliable power grids and a nascent telecommunications infrastructure. In these instances, it is clear that neither a purely correspondence model nor a fully synchronous course experience is desired or possible. The Correspondence Plus model provides a flexible, scalable, and potent alternative to both modalities.

COVID-19 Modification Performance in a Medical School Human Anatomy Course

John McNamara, Michael Nolan, Virginia Tech

The need for social distancing in the dissection laboratory required splitting the class of 48 students (which prior to COVID-19 dissected together for 3 consecutive hours each week) into two groups of 24 students, each of which would spend 90 minutes dissecting, one group following the other group during a 3-hour period. While this change resulted in an overall reduction in dissection time for each student, it improved the faculty/student ratio during each laboratory session from 3:48 to 3:24. Secondly, live lectures, typically one per week preceding each laboratory session, were pre-recorded, and posted to Canvas for viewing during student non-dissection time. We compared the mean anatomy examination scores for each of four Blocks of instruction during four years prior to COVID-19 with scores for the four Blocks of instruction during the COVID-19 year (AY2020-2021). We found that performance on the End-of-Block Examinations for Blocks II, III and IV were comparable for all five years reviewed. Performance on the Block I examination during AY2020-2021(COVID-19 year) was substantially lower than for the previous four years, reflecting a drop from an average of 78% for the four years prior to COVID-19 to 70% during AY2020-2021. However, performance in subsequent Blocks was comparable both before and during COVID-19 suggesting that students were able to adapt to the implemented changes in the anatomy curriculum (Tables to be included on poster). The drop in the average student performance on the Block I examination following COVID-19 related instructional modifications suggests that some students were less successful in adapting to one or both of the modifications adapted for AY2020-2021, namely a reduction in overall dissection time from 3 hours/week prior to COVID-19 to 90 minutes/week during COVID-19 (despite increased accessibility of the faculty during each laboratory session) and a shift from live lectures to pre-recorded lectures. However, our data also indicate that students were able to make necessary adjustments to perform at levels comparable to those seen during the four years prior to AY2020-2021. We are now considering ways to better develop and deliver the Block I anatomy curriculum should we be required to continue implementing changes associated with the COVID-19 pandemic during AY2021-2022.

Creating Competition-Based Graduate Symposia as Professional Development Opportunities

Sharon Stidham, Virginia Tech

Stansberry (2017) tells us "situated learning requires the designer to consider where and how the ... knowledge and skills will be used" (p. 17). Collins and Kapur (2014) argue it is essential "to tightly couple a focus on accomplishing tasks with a focus on the underlying competencies needed to carry out the tasks" (p. 118). Likewise, constructivist learning theorists offer "(1) learning results from interpretations of experience; (2) learning is an active experience that occurs in realistic and relevant environments; and (3) learning results from exposure to multiple perspectives" (Stefaniak, 2015, p. 50). Creating a competitive graduate symposium as a professional development opportunity must encourage the graduate student researchers to see themselves as future professional researchers, and enable them to develop the skills and self-efficacy to effectively communicate their research to both those in and outside of their discipline. By recruiting active researchers with terminal degrees, and supplementing their ranks with qualified research librarians, upon whose expertise these students typically rely, a dynamic approach to the construction of three person judging panels may be taken. It is preferred that the judges come from outside the presenters' disciplines. Standardized assessment tools and training on the use and desired outcomes for these tools must be provided to the judges.

Authentic contexts must be embedded within each aspect of this effort. Abstracts must be solicited, mimicking the practices of a professional convention. Special emphasis must be placed on the ability of the submitter to communicate with a broad audience. As in the professional world, abstracts must be reviewed anonymously, by peers (master's or doctoral students), who have been trained in the expectations and demands of the review process. To further extend the situated learning opportunities for prospective presenters, abstract submitters may be invited to act as reviewers, offering them the perspective provided by engaging in multiple roles. After the event, copies of the judges' completed assessments must be sent to the presenters to promote reflection, allowing the presenters to leverage the coaching provided by the judges, and so they would understand the purpose and outcome of the assessments. The intention of the design focuses on the academic and professional needs of graduate student researchers and creates a learning environment in which they may actively participate and ultimately benefit from. Creating such an opportunity offers graduate student researchers an instance of legitimate peripheral participation, which is described as how "apprentices participate in a community of practice" (Collins & Kapur, 2014, p. 118). As apprentices seeking to join the community of practice within their academic discipline, they are constantly working and observing from the boundary, activities which Lave and Wegner (1991) call legitimate peripheral participation. By adding the incentive of a competitive element, with the possibility of scholarship monies, such an event can be beneficial to graduate student researchers from across a wide variety of disciplines. This poster details the realities of designing and staging such an event, using examples of past events to supplement the research-based practices presented.

Darkroom to Digital during a Pandemic

Benita VanWinkle, High Point University

In March of 2020, all classes became online classes...even the hands-on analog film Darkroom I class and the advanced Darkroom II class, leaving this photography faculty member wondering how students could finish out their coursework and still gain an understanding of working in black and white and advanced photographic processes. With the shift to online coursework the beginning Darkroom I students no longer had access to the university's digital single-lens reflex cameras. To accommodate this loss, these students were instructed to transfer what they had learned about the aesthetics of black and white photography from their film cameras to the cameras they all had - their smartphones. In addition, the students lost access to Adobe Photoshop and could not be asked to purchase this specialized software at such short notice with all of the stresses of finances since the world literally shut down overnight. The free photo editing app called SNAPSEED was the answer for the Darkroom I class. A tutorial was developed to transfer what students had been practicing aesthetically on film to creating digital images. The semester was quickly back on track with technical information. but assignments had to be completely changed since students were now isolated at home. Examples of outstanding documentary and film photographers such as Ed Kashi, Mary Ellen Mark,

Abigail Heyman and Roy DeCarava were introduced to inspire the students to photograph "Life at this Moment", meaning, what did their world look and feel like right this minute? Even as crazy as this was, it was a 'moment' and the photos students took would help them record what they were feeling as well as seeing. As expected, images of isolation arrived, but so did portraits of older family members, local grocery stores void of food and paper products overlaid with directional arrows for guidance. Other images celebrated the gardens outside students' windows. SNAPSEED allowed students to experience and record life in a changed world, and how to adapt to a changed classroom. Students learned their new reality was not all negative as they celebrated what was right in front of them, and how beautiful life could be at a slower pace and in black and white. Having already built a pinhole camera, printed on fiber-based papers to achieve archival results, and visualized the world in blue through non-silver cyanotype imaging Darkroom II students thrived. They continued to experiment with non-silver processes at home by making transparency negatives on a printer, creating photos on artists' paper and fabric, and sewing on them. One student even built a three-dimensional sculpture out of her photographs!

Design Thinking: Creating a Longitudinal Medical Student Experience Diagram

Renee LeClair, Patrick Bonson, Virginia Tech Carilion School of Medicine

Medical education programs use a variety of mechanisms to evaluate their effectiveness, but they do not always account the full variety of influences that form the student experience. To improve our understanding of medical school experiences, we implemented design thinking strategies to collect longitudinal student feedback to guide curriculum changes. Students across all four years at VTCSOM, were interviewed using a series of 29 questions that were adapted from existing university Likert-style evaluations. During the interviews, individualized experience diagrams were generated to capture the student experience. Following the interview phase, individual experience diagrams were thematically coded and sorted using a rose-thorn-bud approach. The coded information was organized longitudinally across a 4-year time span to generate a cohesive single experience diagram, representing the holistic student experience. The themes identified were categorized as non-chronological, including personal routine, study-styles, relationships, backgrounds, student support, and cohesiveness, or chronological, relating to specific curricular elements. The results of this process will be member-checked, and additional input from the student stakeholders will validate established themes before presentation to stakeholder faculty. In conclusion, this methodology has identified several curricular and non-curricular stresses related to medical students that should be further examined to guide curricular change, resource allocation, and faculty development.

Designing Success: Creating Learning Experiences to Expand Graduate Students' Future Employment

Sharon Stidham, Virginia Tech

Graduate students are often encouraged to engage in situated learning opportunities as vehicles for personal and professional development as active members of their various academic and professional communities, with the caveat that the activities do not take too many hours away from their studies or their research. Situated learning within the context of a service activity is touted as essential for students at every level (Eyler & Giles, 1999), and is often embedded in courses offered throughout the academic year by many colleges and universities, with the intention of providing both contextually situated learning experiences as well as purposeful service activities for the students. However, because relevant literature supports providing well-structured programs (Eyler & Giles, 1999; Maddrell, 2014; Stefaniak, 2020), these offerings seem to be frequently focused on the needs of younger students or those in specific academic programs (Stefaniak, 2020). This dearth of offerings opens the door to creating a contextually situated service-learning opportunity for one's self, extending the possibility for examining and understanding the results of executing that program. Creating a contextually situated learning opportunity for others as a graduate student necessitates a shift of understanding of one's role, encompassing simultaneously learner and pedagogue, as the outcomes incumbent to both are layered into the experience. This complex endeavor can result in the development of valuable transferable skills, which can be leveraged as the graduate student approaches graduation and entry into the job market.

Elevate Research Program: Leveraging Undergraduate Research to Close Equity Gaps

Joe Wirgau, Heather Keith, Margaret Pate, Jeanne Mekolichick, Radford University

It is well documented that a range of disparities exist within higher education in the United States. Significant differences can be observed in the first-year retention rates (CSRDE, 2002) and six-year graduation rates of minoritized students (CSRDE, 2003). This pattern persists as the percentage of minoritized students enrolled in higher education continues to grow (USDOE, 2000). This demographic shift in the student body is occurring much more rapidly than the diversification of the faculty at most universities. Data from the Integrated Postsecondary Education Data System (IPEDS) shares that approximately 76 % of faculty are "white, non-Hispanic," while only 53 % of students identified the same. Black, Hispanic, or multi-racial students are now nearly 40 % of the student body, while making up only 12 % of the faculty. Representation matters. Faculty diversity has been positively associated with graduation rates of minoritized student populations (Stout, et al., 2018). Our comprehensive mid-sized public university mirrors the national trends. We have an increasingly diverse student body, a largely White, non-Latinx faculty, and retention and graduation rate disparities across student populations. Our data demonstrates that undergraduate research, scholarship and creative inquiry (URSCI) experiences increase retention and graduation rates of all students, helping to close equity gaps for minoritized students. This impact is most significant with first- and second-year students. With the goal of leveraging the transformative power of undergraduate research experiences, we partnered faculty fellows with student mentors through the grant-funded Elevate Research Program to incorporate research experiences into classes that typically enroll first- and second-year students. The program is designed to elevate students through two main pathways. First, is early exposure to URSCI for students enrolled in the classes. Second, is through student research mentors serving in leadership roles for each class. Elevate Research Faculty Fellows transform a course to infuse an undergraduate research experience and select an Elevate Research Student Mentor to work with the class. The Elevate Research Student Mentors are successful, upper-level undergraduate BIPOC students who provide representative leadership within the class, expertise in an area of study, and a channel of communication that may be less intimidating than the faculty to first-time researchers. Faculty fellows and student mentors in the program receive personal and professional development. The faculty receive training focused on multicultural awareness, mentorship, teamwork, and backward course design for course-based URSCI. The student mentors are provided training and support focused on leadership, networking, and developing and translating career-readiness skills. In our presentation we will discuss the format of the program, initial data from the first cohort, and future plans for the program.

Employers' perspective of employability skills

Tabitha Young, Joseph Mukuni, Virginia Tech

The proposed poster will summarize a study on employability skills. The word "Employability" consists of the words employment and ability. The term refers to the ability to be employed. Employability is also known as know-how, transferable skills, or generic skills. Examples of employability skills are communication, teamwork, work ethic, critical thinking and problem solving, punctuality, computer skills, and continuous learning skills.

In the literature, much has been said about employability skills- also referred to as workplace know -how skills or workplace readiness skills (see for instance Doyle, 2020; Rosenburg, 2012; Makki et al, 2015; Anthony & Garner,2016; Caggiano, et al.2020; Dean, 2017; Fajaryati, & Akhyar, 2020; Hadiyanto,et al, 2021; Nicola, Pinto, & Mendonça, 2018). Employers have been calling for schools and higher education institutions to incorporate employability skills in the curriculum.

In response to employers' call for employability skills, the Virginia Department of Education (VDOE) has included Workplace Readiness Skills in task lists of all career and technical education program areas. Despite this initiative

taken by the Department of Education, employers have continued to call for career readiness skills. Research began in the mid-1980's to compile a list of skills needed for the workplace.

The purpose of this study was to gain insight into the perception of employers on employability skills. In addition to the employers ranking set of identified employability skills, the employers participating in the study were given an opportunity to list any additional skills they find critical in the workplace. The study was conducted by using a survey instrument. Participants were randomly selected among employers in Giles County. The sample of this study was 12 participants. The data was collected over a two-month period. Emails were sent out to approximately 30 employers and 12 surveys were completed. One of the key results of the study was that employers place a lot of importance to employability skills and expect students to learn these as a part of their schooling.

Employers' responses and the literature agree on the importance of similar employability skills. From the findings of the study, it is recommended that teachers, students, and employers should collaborate in the teaching of employability skills. One way to increase employability skills is to collaborate through work-based learning.

The poster will give an overview of the study, its objectives, problem statement, methodology, key findings, and recommendations.

Faculty Development: A story of growth, collaboration, and support

Breana Bayraktar, Northern Virginia Community College

This presentation shares the results of a grounded theory research study exploring how instructors engage in faculty development activities, and how they apply to their teaching what they learn from faculty development. Participants (14) attended a one-day online workshop, participated in a faculty learning community (FLC), and participated in two 1.5 hour interviews. Themes addressing how instructors make decisions about faculty development that emerged from analysis of interview data were: (1) sense of self as an educator; (2) commitment to students; (3) making choices about development activities and topics; (4) motivation to participate and to implement faculty development; (5) messages about teaching; (6) experimentation; (7) vulnerability; and (8) community/collaboration. From this analysis, I concluded that instructors in this study make decisions about their faculty development activities based on three priorities. First, instructors choose opportunities that benefit student learning. A second priority is choosing opportunities that feel personally authentic. Sometimes this leads to choosing activities that affirm existing beliefs or teaching practices, but often this leads to choosing activities that challenge existing perspectives and practices. A third priority concerns the logistics of time, institutional support, and opportunity for collaboration. Based on these conclusions, I constructed a model of Faculty Development Decision-Making, which describes how instructors make decisions about engaging in faculty development activities and implementing innovative teaching practices.

Food Labs in a Remote World

Georgianna Mann, Alex Lopez, University of Mississippi

The COVID-19 pandemic created unprecedented challenges for higher education. Courses that were historically offered in person were offered in a hybrid format or strictly online. Lab-based courses faced even greater difficulties, either requiring additional lab sections to accommodate social distancing which increased staffing costs and faculty effort, or transitioned to online which was only effective for a small number of labs. Food-based labs are unique and, in many cases, can be modified for any home environment with basic cooking equipment. Experimental Food Study is an upper-level undergraduate nutrition course covering the chemical and physical factors affecting standard food preparation procedures. Historically taught as a 3-hour lecture course with a lab, the COVID-19 pandemic spurred course innovation. Course modifications included a web-based lab, elimination of the 3-test model, and a movement to critical thinking assignments in a module format. While the product development project remained the central focus of the labs, students no longer met

in person for labs. Students were instead required to meet via Zoom to develop the product in groups. Some students, as they felt comfortable, met in person to complete lab tasks. Groups were permitted to decide amongst themselves how and when to meet as a group to carry out their product development project. The purpose of this study was to explore student perceptions of teamwork skills before and after the course and perceptions of the project. Areas for improvement after the first two iterations of the online course lab component are also detailed. Students enrolled in Experimental Food Study in the Spring and Fall of the 2020-2021 school year were included. Students completed a pre and post-survey developed from the Interprofessional Socialization and Valuing Scale (IVS-21) with additional project reflection questions. Students also completed one reflective journal at the end of the course. This project was approved by the University of Mississippi Institutional Review Board. Pre and post-survey responses were analyzed using paired t-tests and project reflection questions were reported using descriptive statistics. Excerpts from these journals are included here to describe and detail results from the quantitative surveys. All students in both semesters shared the sentiment that they "have an appreciation for the value in sharing research evidence across different disciplines in a team." Students in the spring 2021 expressed gains in understanding roles on a team, confidence in team situations, and appreciation for team activities. Overall scores reflecting on the project were high, with average scores ranging from 4.50 to 4.88 on a 5-point scale. Despite the strong positive scores from students, many challenges remain with the online lab component. For example, a central ingredient pickup would be a welcome addition to the course to minimize student cost, student roles must be well defined before engaging in the project, and it would be helpful to define a certain time that students are to meet twice weekly to help navigate scheduling conflicts that might arise. Overall, as demonstrated by survey results and student reflective pieces, the lab project was well-received even in an online environment.

Frazzled Faculty Teaching Stressed Students: Navigating Righteously Through Shared Trauma

Diana Rios, Graciela Quinones-Rodriguez, University of Connecticut
MaryHelen Millham, University of Hartford

During the pre-COVID decades, many college professional staff and faculty tried their best to be trauma-informed for student health and safety. Our goal is to heighten awareness about today's missing bridges that more firmly connect the instructor-student shared experience of continued stress, prolonged trauma. Besides presenting a philosophical view with accompanying visuals, and examples of cross disciplinary assignments (Communication, Latino Studies, Women Studies), we will share simple "mini-modules" supporting spirits-attitudes of both educator and student. No faculty/professional staff is above the frazzle or the trauma. We are in the big trauma boat together and rowing fiercely. Pre-COVID, educators were concerned about issues such as: free speech-teaching in the classroom, gender pay equity, campus and city sanctuaries, hazing, racial harassment, sexual assault, food insecurities, and dwindling financial aid. Our list of important issues is now longer and broader. A cursory look at news stories, academic reports, essays, and empirical studies during the last two years reveals a separation of focus, or two distinct lines of questioning--one examining the educator and one investigating the student. This poster illustrates and highlights important issues of overlap between faculty and student experiences (we are in the same COVID environment "boat", we all need to get vitamin D from sunshine outside the building, the region/nation is losing sleep over the elections/war/hurricane flooding/new refugees coming soon), and points of departure. We acknowledge practical reasons that do not allow particular information flow between faculty members and students. There is the real need to maintain classroom authority for female faculty; the need to maintain learning steps and structure to share knowledge/expertise; the need to respect educational level, role, and position. Still, we educators need to acknowledge and plan our newish "trauma-informed" academic lives, academic curriculum, while more closely acknowledging a shared trauma of world crisis with students. Besides presenting a philosophical view with accompanying visuals, and examples of cross disciplinary assignments (Communication, Latino Studies, Women Studies), we will share simple "mini-modules" that aim to support the spirit and attitude of both the educator and the student. These can be inserted anywhere in one's curriculum but are best situated at the beginning of the term after "ice breaker" exercises; in the middle, around midterm exams; and toward the end of the term. We educators have our careers in higher education because of students, even at R-1 institutions with research demands. No faculty/professional staff is above the frazzle or the trauma. We are in the big trauma boat together with our students, and rowing fiercely.

How Mindfulness Intersects with Teaching Critical Thinking to Today's Students

Tricia Easterling, Radford University

College students make up a substantial fraction of the emerging adult demographic and a large portion of them report significant stress-related mental health issues, including anxiety and depression. These types of mental health concerns can and do negatively impact students both interpersonally and academically. The effects of these matters are significant, as students with such challenges have difficulties with academic impairment, campus engagement, personal relationships and graduation rates. Because of the magnitude of the problem, colleges need creative, developmentally targeted, evidence-based strategies to effectively address these issues.

Imagining Just Futures Across Disciplines: The NSF CREATE/STS Project

Shannon Conley, Emily York, Cindy Klevickis, Holly Yanacek, Daisy Breneman, Marissa Brandt, James Madison University

This research presentation introduces a methodology for collaboration and pedagogical development across disciplines. Drawing data from year one at James Madison University, we present analysis of our methodology emerging from the NSF funded CREATE/STS (Collaborative Research and Education Architecture for Transformative Engagement with STS) project. The acronym "STS" stands for Science, Technology, and Society and is the primary disciplinary field of all of the PIs on the project. STS is uniquely positioned to facilitate interdisciplinary collaboration and integration through STS approaches to pedagogy-- practices of teaching and learning that build on the field's deep engagement with the ethical and societal dimensions of science, technology, and innovation. This project implements and evaluates a model for collaboratively developing STS pedagogies with a cohort of STEM and humanities faculty and undergraduate students, designed to build new interdisciplinary STS-inflected modules for each participating faculty member's course that are also informed by the perspectives of each of the faculty members in the cohort.

CREATE/STS is a three year multi-institutional project, with the first year occurring at JMU and in the subsequent years at Colorado School of Mines, Michigan State University, and University of Maryland. CREATE/STS builds on the Creative Anticipatory Ethical Reasoning (CAER) model--a blend of scenario analysis, design fiction, and ethical reasoning--that York and Conley developed first in the classroom (York and Conley, 2020), and subsequently adopted in the on-going Co-Imagining Futures workshop series piloted and developed in the JMU STS Futures Lab since 2018 (York et al., 2019). In Co-Imagining Futures, an invited expert selects a topic from their own research and joins the JMU STS Futures Lab for an interactive CAER process in which undergraduate students co-facilitate a collaborative engagement interrogating the expert's topic in relation to plausible futures. The aim of CREATE/STS is to scale up, experiment with, compare, and test the framework for integrating STEM and humanities curricula in our different 4-year college settings. With an overarching theme of "Imagining a Just Future," in year one, a JMU cohort of student research assistants as well as four faculty from STEM and Humanities/Social Sciences applied and were selected for the first iteration of the project. One anticipated outcome of the project is that each of the faculty participants will have a module for implementation in a spring 2022 course. We ask: To what extent are the modules inflected with insights/content from other disciplines, given our methodology and workshop structure? A key insight that is emerging from this work is that the presence of undergraduate students as co-facilitators and the pedagogical orientation of these interactions open up a space for "pedagogical commonlands" in which participants develop trading zones and interactional competence. As we experiment and continue building the framework, our goal is to have a flexible resource that faculty can deploy in a variety of institutional contexts. We will report out pilot findings from the fall 2021 semester's series of workshops that aim to facilitate mutual learning and creative, imaginative collaboration amongst faculty and students.

Implementing a Mastery-Based Ungrading Approach in Laboratory Science Courses

Erin Friedman, Jamie Brooks, Lynchburg University

Traditional grading is rife with problems, including reduced student interest in learning, decreased student engagement in challenging tasks, increased cheating, and grade inflation coupled with a trend toward reduced rigor. Specifications grading is a type of ungrading system that is based on adult-learning theory and allows students to work toward a desired course grade while demonstrating content mastery. This system minimizes anxiety and maximizes intrinsic motivation while maintaining academic rigor by relying upon clearly communicated expectations, multiple attempts, and frequent self-assessment and feedback. We will share our implementation of this grading system into core and elective laboratory science courses. In response, a current movement in higher education is to transition away from traditional grading in favor of practices like ungrading (Blum 2020). However, ungrading has its own challenges, including the need to ultimately assign a final grade, difficulty in implementation in large courses, and the need to clearly demonstrate student mastery, especially in core courses. Specifications grading is a type of ungrading system that allows students to work toward a desired course grade while demonstrating content mastery.

Instructor Listening Style as a Situational Demand

Marielle Justine Sumilong, University of the Philippines

Listening style as a situational demand: Exploring speech communication instructors' listening behaviors at the time of the pandemic. Teachers are called upon to be a particular kind of listener in the classroom; active-empathic listening has been recognized invaluable to effective instruction. The shift in delivery modalities following the Covid-19 pandemic -from traditional face-to-face to modular remote instruction- exacerbated and catalyzed many instructional communication-related challenges that instructors now have to address and alleviate. This study sought to determine whether Speech Communication instructors adjust their listening styles to adapt to the different communication demands of a remote classroom. Results determined a significant difference in the instructors' critical listening scores. Utilizing Bodie, Worthington, and Gearhart's (2013) Listening Styles Profile-Revised (LSP-R) as a self-report tool, Speech Communication instructors of the University of the Philippines Diliman evaluated their listening styles 1) in the traditional face-to-face classes they had pre-pandemic, and 2) in the online synchronous classes they facilitate during the pandemic. The study found no significant differences in the instructor section scores in the analytical, relational, and task-oriented listening styles pre- and during the pandemic; however, the instructors' score differences on critical listening scores have proven to be significant determined through a paired t-test statistical treatment. Aside from identifying the differences in listening styles, the study was able to briefly describe the challenges (pandemic-induced worries and anxieties, adjustment of instructional plans and materials for remote delivery, harnessing motivation, and delivering authentic learning) that may have prompted the changes in the instructors' listening styles.

Integrating Health Systems Science Through Intentional Clinical Faculty Professional Development

Sarah Umbarger-Wells, Shari Whicker, Mariah Rudd,

In 2020, VTCSOM, in partnership with Carilion Clinic, embarked on a "collaborative and systematic" revision of curricular content supporting longitudinal grounding and application of health systems science (HSS) across all 4-years of medical education.1 One recommendation to aid in accomplishing this revision, and successfully achieve intended educational outcomes, was to develop a "clinical champions" experience to increase faculty knowledge across the breadth and depth of health systems science.

International Collaboration Assignment - A Global Connection Experience

Karen Stylianides, Lorie Kramer, Garrett Huck, Penn State University - Hazleton

Virtual platforms have suddenly made our world smaller. With the click of a keyboard key, we can now connect essentially with all corners of the globe. This proposal submission is a conversation session in which we will discuss our experience in organizing, connecting, collaborating, and facilitating a mutual international assignment with the United Arab Emirates University and Penn State University Hazleton.

Let's Use Service Learning to Increase Student Engagement and Success!!

Sally Sledge, Norfolk State University

Service learning has been used in college courses for decades with much success. Evidence shows that service-learning assignments can positively impact student degree completion rates as well as student satisfaction (Lockerman and Pelco, 2013). Service-learning assignments can achieve many desired course outcomes, such as experiential assignments, real world practices, out of classroom invovlement, critical thinking, communication skills, problem solving, service to others, community engagement and more. Pedagogically, service learning can also help students achieve many of the levels in Bloom's taxonomy of learning (Bloom, 1956). These include remembering, understanding, application, analysis, evaluation, and creation. Another learning schema from Wiggins and McTighe (1998), known as the Six Facets of Understanding, can be used to assess good service-learning assignments. This framework includes the types of understanding known as explanation, interpretation, application, perspective, empathy, and self-knowledge. The poster will include questions for viewers that query how their own service-learning assignments might capture these higher order types of knowledge. In this poster session, I will share what I have learned about service learning in the college classroom in my 15+ years of using these assignments. My experiences have been in business schools, but the assignment template I will be sharing can be adapted for faculty in other disciplines. The template will be generic enough for faculty who have never used service learning in their courses. It will also be modified by faculty who might want to take their service learning assignments to the next level. Tips for successful service learning experiences will be given. A major goal for these assignments is to have students create a project for themselves which involves self-directed learning, guided by the professor, and ideally, self-discovery, with possible peer-to-peer sharing and career exploration. Open discussions around the poster will allow for the exchange of ideas and strategies during the session. A final piece of the service learning project should be self-reflection for the student near the end of the assignment. This closing activity is often omitted from service learning. However, it allows for additional thoughts about the project in a holistic fashion where students can synthesize what they have gained. Service learning can be a capstone college experience that bridges knowledge acquired from other courses and career or personal plans for the future. The poster will include some suggestions for maximizing the self-reflection piece of the assignment. The poster session will also address delivering service learning in the face-to-face, virtual and hybrid classroom formats. The use of technology to reach students will be highlighted. Success strategies will be shared and an invitation to join a discussion group will be given to participants.

Linking Pedagogy with Assessment Through Reflective Practice

John McNamara, Michael Nolan, Virginia Tech

An essential component of a successful learning activity is the effective linking of pedagogical approaches and assessment. An assessment can be defined operationally as the product of a process of measuring. To assess means to measure. In academia, it typically refers to the act of measuring behavior indicating the extent to which students have attained the objectives of a course or program of study. The act of measuring requires some method of measuring, most frequently by means of a test of some sort, although many other methods of measuring can be considered such as the production of a manuscript, the creation of a piece of art or music, the delivery of an oral presentation or the acquisition of a skill. The two main purposes of assessments are to provide feedback to students regarding their success in achieving the objectives of the course (i.e., learning) and to provide faculty with data which can be used to determine success or failure, or to stratify (rank order) students based on the results of the assessment. Assessment data can be used to inform faculty regarding the effectiveness of their teaching or the materials used by the students to learn. Assessments are of two general types. Based on their primary intended purpose, assessments can be divided into two general types: formative and summative. Formative assessments are primarily intended to provide students with feedback and guidance. Formative assessments are administered at intervals during a course. In order to provide authentic feedback and guidance, the format of a formative assessment should be similar to that used on the summative assessment.

Specifically, the nature of the formative assessment tasks (see Bloom's taxonomy) should be similar to those associated with the summative assessment, and these must correspond with the stated learning objectives of the course. Summative assessments are administered at the end of a course or at some other defined end-point in a program of study. These types of assessments are commonly known as final examinations. The main purposes of summative assessments are to determine success in achieving the objectives of a course or in the completion of some other project defined in the stated learning objectives of the learning activity. Data derived from summative assessments can be used to rank order students and as a basis for assigning grades in settings where more than one level of success is designated by letter or other descriptor. As with formative assessments, the nature of the summative assessment should be similar to those associated with the summative assessment (see Bloom's taxonomy). The consequence of failure to successfully link pedagogy with assessment methods can result in unreliable measures of student and course effectiveness (e.g., student satisfaction). In this session, we will present and discuss an effective method/approach for linking pedagogy and assessment to ensure student success. Participants will be provided with insights important to linking pedagogy with assessments. Furthermore, participants will be prepared to examine and evaluate the use of assessments for success in their own courses.

Mentorship for New Faculty in Higher Education

Megan Edwards Collins, Sanchala Sen, Chinno Ing, Winston-Salem State University

New faculty in Higher Education frequently do not have educational backgrounds that prepare them for taking on a role in Academia. The mentorship process (formal or informal) can play an essential role in ensuring success for new faculty. The Mentorship for New Faculty in higher Education session will include three faculty from Winston-Salem State University's Occupational Therapy Department. They will share their experiences, strategies, and suggestions for mentors and mentees in academia. Tips and strategies for both mentors and mentees will be provided to better ensure a positive and beneficial experience for faculty and students. Teaching, research, and service will be addressed and discussed. Strategies for mentors and mentees that are in Higher Education will be provided. This includes the importance of communication, being flexible, and seeking/providing feedback. The importance of and reasoning behind mentorship will also be discussed. This includes assisting new faculty with developing effective teaching strategies and skills, increasing faculty retention and satisfaction, and helping ensure a positive learning environment for students. Participants will be given the opportunity to discuss case studies and share their experiences, concerns, and suggestions. Learning objectives include: 1. Participants will identify 3 strategies for an effective mentorship process among faculty in Higher Education 2. Participants will identify 2 reasons why mentorship in Higher Education is essential.

Mindfulness in Higher Education: Strategies for Educators and Students

Sarah Smidl, Viki Neurauter, Carma Sample, Sarah Garrison, Radford University

COVID concerns, committee meetings, course prep, your children's events, and of course, what to make for dinner! That is what is running through your mind as you race off to teach your class. Homework, projects, three papers due next week, family commitments, and upcoming exams! That is what is running through your students' minds as they race off to your class. The word "mindfulness" conjures a variety of thoughts and ideas and frequently piques curiosity, especially for those who have busy and stress-filled lives. While stress and anxiety may be a common and anticipated response to teaching and learning, there are effective strategies, that when implemented as part of a routine practice, can have a significant influence on our ability to more effectively handle stress and daily challenges. This practice session will offer its attendees information about how to implement basic mindfulness strategies into both their personal lives and into a classroom setting. The challenges and precautions of developing a mindfulness practice will also be addressed. By the end of the presentation, attendees will be able to: Define and verbalize the benefits of mindfulness, Articulate the challenges and precautions of using mindfulness strategies, Practice several mindfulness techniques, and decide on which to apply at home and in the classroom, Identify resources to learn more about mindfulness.

Moving Forward. The JCSU Center for Innovative Teaching and Learning

John Bannister, Johnson C. Smith University

This presentation will highlight Johnson C. Smith's Center for Innovative Teaching and Learning, which was brought back as part of JCSU response to the COVID-19 pandemic and the required rapid shift to 100% virtual learning. The work of the center in grounded in the principles and foundations of Connectivism (Siemens) which posits the value of connections, the diversity of opinions in the learning process and the use of technology to gain and distribute knowledge.

The Center's Director, Dr. John Bannister will speak to the opportunity that presented itself as the University was forced to address this shift in teaching and learning as well as the strategies that were used to move the institution from less than 10% of its faculty teaching online to 100% online delivery. Dr. Bannister will also discuss the Center's activities post pandemic and how he aligns the centers activities with as JCSU looks to develop its campus teaching and learning community in support Johnson C. Smith's new strategic plan.

Pre-Service Teachers' Multicultural Literature: Planning and Implementing Windows and Mirrors

Kristen Gregory, Gordon Goodwin, Eastern Carolina University

Culturally responsive teaching, multicultural education, and equitable education are important aspects of teaching, and each can and should be addressed in teacher education programs (Darling-Hammond, 2006; Ladson-Billings, 1995, Nieto, 2000). As pre-service teachers (PSTs) learn about the importance of equitable and culturally responsive strategies, it is imperative they have opportunities to plan for and implement these strategies in practice (Ivy et al., 2019; Ticknor et al., 2020). Windows and mirrors (Bishop, 1990) is a strategy where authors create opportunities for readers to see themselves authentically represented in the book (mirrors) and learn about different people, cultures and backgrounds (windows). This is critical for students who are marginalized and underrepresented in literature. Educators who build a multicultural library in their classrooms send important messages to their classroom community that all students are important and represented in society. During teacher education programs, PSTs can learn how and why they can be purposeful in their text selection and creation. Using a case study approach, we investigated how 18 early experience PSTs used windows and mirrors when creating alphabet books and conducting an interactive read aloud (IRA). The PSTs were enrolled in a Junior I ELA methods course where they learned about multicultural education, windows and mirrors, and the importance of using multicultural literature in lessons. For their final exam, they created a multicultural alphabet book and conducted an IRA. We used open and axial coding to analyze the PSTs' plans, alphabet books, and IRA videos/transcriptions. Two researchers collaboratively coded 20% of the data with 100% agreement and then independently coded half of the remaining data. We collaboratively collapsed the codes and identified three levels of implementation of mirrors and windows in the alphabet books and IRAs. All PSTs identified using mirrors and windows in their plan. Examples of implementation will be provided in the presentation. Failed Implementation: While the examples in the books showed different countries, diverse people or cultures were not represented. Discussion questions during the IRA did not provide mirrors and windows. Surface-Level Implementation: Some authors included different countries, yet cultures were minimally represented and diverse people were not visually represented. Minimal discussion questions during the IRA provided mirrors and windows. Other authors included different countries and diverse people, but different cultures were not represented. Discussion questions during the IRA did not provide mirrors and windows. Strong Implementation: Some authors included different countries, cultures, and people throughout the books. Many discussion questions during the IRA provided mirrors and windows. Other authors represented different people from the same culture throughout the book, and they used the book to educate readers about this one specific culture and group of people. Many discussion questions during the IRA provided mirrors and windows. Despite an explicit focus in the course on windows and mirrors, PSTs enacted varying levels of implementation. The exposure in this early-program course could lay the foundation for future coursework and practice. Including windows and mirrors, along with other culturally responsive strategies, throughout teacher education programs is imperative to promoting multicultural education.

Rethinking the Teaching of Research in Practitioner-Oriented Doctoral Programs

Sarah Capello, Edwin Nii Bonney, Maxwell Yurkofsky, Brad Bizzell, Radford University

The Carnegie Project on the Education Doctorate (CPED) (2021) has developed a framework for revised EdD programs in education that prepare scholar-practitioners to identify, frame, and address problems of practice within their local schooling context. CPED's framework has led over 100 member institutions to reconsider major components of EdD program design and the implications of that redesign for curriculum and instruction. Since calls for redesigning EdD programs from CPED and others (e.g., Levine, 2005; Shulman et al., 2006) are relatively new, there is much room for experimentation and innovation as program administrators and faculty reconsider the purpose, design, and implementation of practitioner-focused EdD programs. In this roundtable session, we propose facilitating a discussion around research methodology coursework and experiences in practitioner-focused EdD programs as well as the implications for program design and instruction. Education research coursework has typically been structured by research tradition (e.g., quantitative and qualitative methodology), and research experiences have largely been influenced by the PhD dissertation. However, we question whether continuing with these traditions best supports the development of scholar-practitioners who can use research skills to inquire into and address persistent problems of practice. Unfortunately, there has been little empirical study, theoretical contributions, or evidence from practice on the role of research methodology or the teaching of research in practitioner-focused EdD programs. Interestingly, recent adoptions of new-to-education research designs, such as improvement science, have created opportunities to reorganize EdD research coursework and experiences, which have implications for program design and instruction. Several recent, EdD-targeted books (Hinnant-Crawford, 2020; Perry et al., 2020) focus specifically on using improvement science in practitioner-focused programs. Considering the newness of CPED-inspired programs, the implications of improvement science for program design and instruction, and the lack of a cohesive literature base on designing and teaching research courses in revised EdD programs, we argue that now is an opportune time for colleagues across EdD programs (and other practitioner-focused graduate programs) to have a conversation on this important topic. To accomplish our goal of an engaged and lively discussion on rethinking the research components of EdD program design and instruction, we will begin the roundtable with a brief background to the topic and our own conversations and questions as faculty members and an administrator in a CPED EdD program. Next, we will share three guiding questions (listed below) for the session and facilitate the conversation by encouraging participants to share knowledge and ideas from their institutions and experiences. We will provide chart paper, markers, and post-it notes for participants to map their ideas. We will conclude the session by sharing notes and artifacts from the session to all participants through a stable URL link. Questions: How do you teach research in practitioner-oriented doctoral programs? What research-related skills have you and your students found to be most useful in developing successful change agents in schools? If you could innovate how you approach teaching research methods for practitioners, what would you like to see change?

Scaffolding Self-Regulation with College Students

Kristan Morrison, Radford University

Self-regulation is a set of processes and self-beliefs that help students with their learning and stress levels; it encompasses both cognitive and affective capacities and it includes such things as setting and prioritizing goals for learning, using resources effectively, monitoring performance, managing time effectively, and holding positive beliefs about one's capabilities (Corno, 2001; Schunk and Ertmer, 2000). Much of the literature on self-regulation shows that these processes and self-beliefs can be developed through guidance, modelling, and supportive contexts (Boekaerts and Corno, 2005; Paris and Newman, 1990; Schunk, 1989; Zimmerman, 2000) and are enhanced when students are given ample opportunity to improve with practice (Bandura, 1997; Flavell, 1979; Pressley, 1995). This facilitated conversation will explore ways in which the presenter and the participants work to develop self-regulation in the students in their university classes.

Some ideas that the presenter will share include such things as encouraging goal-setting, offering students in her classes time management training (details of such training will be offered), setting up standards-based grading and giving students time in class to track and reflect on their growth in meeting the standards, having explicit discussions about the class policy for technology (e.g. cell phones, laptops) use in classes, doing weekly email check-ins with students on their growth in self-regulation, and allowing limited opportunities to redo/improve work. Some of the questions to be posed in this session will include: Is teaching "how to learn" the responsibility of college professors or is it safe to assume that students come into our classes with these skills? Why might some students not have strong self-regulation skills? What are the ways in which you help your students learn "how to learn" effectively? What barriers exist within the structure of higher education or in a society's culture to teaching our students "how to learn"? Are there partnerships that can be developed across campus to facilitate students' self-regulation? Are different interventions better at different times (i.e. is learning self-regulation in late adolescence--typical college age--different/more challenging than learning these skills earlier on)? In addition to academic attainment, what are the emotional and physical health and benefits to encouraging students to develop their skills of self-regulation?

Scientific Transparency, Replication, and Evidence Synthesis Pedagogy: Research and Practices

C. Cozette Comer, Nathaniel D. Porter, Virginia Tech

Replication and synthesis are cornerstones of translating knowledge to action, requiring transparency in the original studies to produce valid, meaningful results. Although graduate courses related to transparency, replicability, or evidence synthesis exist, they are seldom presented within the context of one another. Through this project, we aim to bring these three sometimes disparate aspects of metascience together by developing a Transparency, Replication, and Evidence Synthesis (TRES) graduate course addressing quality, evaluation, and synthesis of scientific methods, data, and evidence for transdisciplinary research. The foundational research for this course is underway, to be completed by the end of 2021. This process consists of two components: (1) a structured review of published pedagogical literature addressing classroom instruction of TRES topics in social sciences, and (2) the collection and analysis of existing relevant course materials (e.g., course descriptions, syllabi). Data collection occurred over the summer of 2021 and was led by two student employees. A structured search was conducted across several academic journal database platforms: EBSCOHost, SAGE Journals, Wiley, Elseveir, PubMed, and JSTOR. Searches were also conducted in Google Scholar and the VT Library Discovery search, hosted by OCLC. We searched for terms related to higher education pedagogy and at least one TRES-related concept. This search was not comprehensive, therefore terms used were not exhaustive. Through this search, we note much of the literature focuses on teaching replication or reproducibility, predominantly in Psychology, with very few articles focusing on the instruction of evidence synthesis. In tandem with the literature review, we collected and examined course descriptions and syllabi, as well as any additional material instructors were willing to share regarding their class. Publicly available course timetables of twenty-four research-intensive institutions in the US were scoured for TRES-related concepts. Course descriptions were manually reviewed for relevance. For all relevant courses with contact information, an email request for additional information (e.g., syllabi) was sent to the appropriate contact. A qualitative content analysis of course descriptions was performed in the open-source tagging tool, Taguette. Through this analysis, we found most courses seem to focus on statistical methods or research methods for specific fields. Syllabi collected through this process, as well as those found in the Open Science Framework (OSF) repository (https://osf.io/vkhbt/) Course Syllabi for Open and Reproducible Methods were analyzed using Latent Dirichlet Allocation Topic Modeling and Epistemic Network Analysis. This research material is publicly available in a living repository on OSF (https://osf.io/jbs2v/). We aim to host the first TRES course for social science graduate students, inspired by the findings from this research, at VT during Fall 2022. By the end of the course, students will be knowledgeable about replication and synthesis methods. Students will also be empowered to document, report, and share future research openly and transparently, hopefully influencing their future collaborators to follow suit. Ultimately, our goal is that this research and the TRES graduate course will provide foundations and models for other institutions and instructors to increase the reach and quality of graduate TRES education.

Specifications grading in an upper- and grad-level Food Science course

Jacob Lahne, Leah Hamilton, Virginia Tech

Traditional, points-based grading systems in the American A-F system have increasingly become a burden for instructors and a focus of monomania for students. Students, who often consider their education as a certification program, respond appropriately (for their purposes) with "grade-grubbing" and other efforts to maximize their points, and minimize their efforts; instructors, overwhelmed with increasing class sizes and their student's willingness to contend over single points, give up on meaningful assessment as too burdensome and subjective, retreating into easy-to-grade "objective" assessments. Specification's grading, developed by Linda Nilson, offers an alternative, formative approach that simultaneously reduces burden on professors and increases student's agency, self-efficacy, and metacognition. Briefly, specifications grading requires that instructors produce detailed, pass-fail rubrics for each assignment--the eponymous "specifications"--and then provide students with overall sets of assignments--"bundles" in the jargon--that must be completed for each grade step. The flexible framework can easily accommodate opportunities for redoing work but eliminates extra credit and other headaches. The specifications approach forces instructors to concentrate on the relationship between their grading expectations and learning objectives--formative assessment--while reducing grading effort and shifting work towards helping students understand why their work is not meeting specification. Students appreciate the real-world nature of specifications grading, which mirrors the "not/good enough" rubric they have been and will be assessed with outside of the educational setting. While there is certainly up-front investment in transitioning a traditionally graded course to specifications, the system is extremely flexible and makes new course designs easier and less arbitrary. This poster presents the principles of specifications grading in more detail, and then focuses on my transition of two Virginia Tech courses--FST 3024 and FST 5014--to specifications grading in 2020 and 2021. In brief, I have found that using specifications grading allows me to assign more meaningful work and has encouraged me to take a growth-oriented approach to my students. My students have succeeded in the course in higher numbers without reducing the quality of their work. I will present examples of new and old assignment rubrics, syllabi, and comments from students on their class experiences from my own feedback surveys and from the Virginia Tech-mandated SPOT surveys.

STEAM Outreach: forming community connections in the time of COVID-19

Kristofer Rau, Virginia Tech

One important relationship that has evolved over the past several decades is the collaboration between STEAM "experts" at colleges/universities and community partners, which may include preK-12 schools, local science museums, and other community organizations or events. Indeed, numerous studies have highlighted the many benefits of community outreach by higher education institutions (e.g. Clark G, et al. 2016). These relationships benefit the community partner by adding valuable content, improving performance and attendance, and improving public perception. These relationships also benefit the public audience by advancing STEAM literacy and advocacy, clarifying misunderstandings and misinformation, and promoting STEAM as a potential career opportunity for students of all demographics. Furthermore, these relationships benefit the students and faculty who are engaged in the outreach, by building camaraderie and teamwork outside of the university setting, providing an added purpose of educating the public, and providing an opportunity to explain their research (and the value of taxpayer funded research overall) to members of the public.

Student Learning Motivation in Asynchronous versus Synchronous Collaborative Learning Groups

Angela Anderson, Lane Williams, Virginia Tech

Rates of online learning continue to increase throughout Higher Ed and have only been accelerated by the COVID-19 Pandemic. Effective pedagogy in online learning environments is paramount as more students are learning through these modalities. Online learning can range on the spectrum from completely asynchronous through learning management systems such as Canvas, to completely synchronous through platforms such as Zoom. In this study, using the MUSIC model for perceived student motivation for learning, we compared the active learning technique of group work asynchronously through a discussion forum to synchronous group work using Break-out Rooms in Zoom. Both classes maintained high levels of perceived student engagement, indicating that many modalities can be effective in increasing student motivation for learning. Specifically, in the synchronous group work section, students felt more "cared" for.

Student Perceptions of Video Feedback in an Asynchronous Online Course

Savanna Love, Randolph-Macon College
David Marshall, Auburn University

An increased interest in online learning environments has led to discussions about the effectiveness of various forms of feedback students receive throughout an online course. Traditionally, feedback has come in the form of written comments. Research has shown that personalized feedback messages in online courses have a positive association with student satisfaction and academic performance (Pardo et al., 2019). Thus, finding approaches to provide personalized, high quality feedback has become an important area of consideration.

Recent literature has demonstrated the ways in which asynchronous, one-to-one, video feedback is advantageous to building student-teacher relationships, with students claiming that watching video feedback felt personal (e.g. Marshall et al., 2020), like the instructor knew them (Parton et al., 2010), cared about them, (Henderson & Phillips, 2015) and valued them (Harper, Green, & Fernandez-Toro, 2012). Students have also reported that video feedback made instructors feel more real, which motivated them to complete assignments (Borup et al., 2014). Instructors reported that it was easier to give encouragement and communicate authentically with the students in video feedback as opposed to text comments (Harper et al., 2012). Though the perceptions of video feedback have been largely positive, students have also reported potential drawbacks, including feeling anxious to watch their video feedback and finding it difficult to contextualize their video feedback comments within their written projects (Henderson & Phillips, 2015). Additionally, some students were found to be more likely to respond to text feedback due to convenience (Borup et al., 2014), while others reported that they preferred video to text feedback but found it time consuming to download (McCarthy, 2015). Understanding the influence asynchronous video feedback has on student perceptions of student-teacher relationships may help instructors facilitate online and blended learning environments that support a sense of classroom community and encourage student engagement and cognitive presence (Collins et al., 2019). The current study sought to understand student perceptions of video feedback in a graduate online asynchronous educational psychology course offered to pre-service teachers. We studied five sections of the same course over three semesters - Fall 2019, Spring 2020 and Spring 2021. During this course, students completed a research project which they submitted in three parts. At each stage of the project, students received video feedback on their progress. At the conclusion of the course, students were asked to complete a survey on their experiences in the course, including the video feedback they received. Students were also invited to participate in a follow-up interview to discuss their perceptions of the video feedback they received. A total of 63 students participated in the survey, and 11 students participated in follow-up interviews. Analysis of this data will include an examination of survey responses related to video feedback and qualitative analysis of interview transcripts. The findings from this study will further the discussions on effective use of video feedback, instructional strategies, and student perceptions of the feedback they receive in online courses. The findings will also be relevant to a broad audience including online instructors, instructional designers, and LMS organizations.

Teaching About Physical Activity and Health Outcomes During a Pandemic

Harold George Philippi Jr., Pam Frasier, Radford University

Given the Covid-19 pandemic, this poster presents a rethinking and reframing how we teach undergraduate health professions students about physical activity and its influence on health outcomes. Physical Activity is body movement produced by contraction of skeletal muscles which increases energy expenditure, and includes exercise, defined as planned, structured and repetitive movement to improve or maintain one or more components of physical fitness (Chodzko-Zajko, W. J., 2014). We have taught our students the more people engage in physical activity, even small amounts of physical activity, the body immediately responds. Physical activity is measured in metabolic equivalents of task. One MET is the amount of energy used while sitting quietly. Physical activities, rated using METs, may indicate intensity, with 1 MET equaling no movement, and ~ 3.5 METS = walking 3 miles per hour (WXYZ, Detroit, 2021). The American College of Sports Medicine (ACSM) has established guidelines for every age cohort from preschoolers to our elders, and from healthy to those with comorbidities and disabilities. Our conversation is based upon the following assumptions: Individuals who exercise but not close to meeting physical activity recommendations for their age group and health status, realize almost immediate improvements in health risks [https://www.cdc.gov/physicalactivity/basics/adults/index.htm], with Covid-19, each 1 MET higher peak fitness, associated hospitalization with Covid-19 sees a 13% drop! (WXYZ Detroit, 2021). Individuals diagnosed with Covid-19 who were "consistently inactive" were 226% more likely to be hospitalized, 173% more likely to be admitted to intensive care units (ICUs), and 149% more likely to die." (WebMD, 2021) Another concern during the pandemic is the lack of physical activity and weight gain, focusing on fitness instead of weight loss is paramount. Our increase of fitness does more for longevity than loss of weight! [NY Times, 2021]. Questions presented include: 1. How do changes in social distancing/physical boundaries affect the way we teach health professions students about physical activity, specifically how we train to assess and instruct clients/patients about the importance of physical activity during the pandemic and long-term? 2. How do faculty maintain student focus/interest when students have minimal involvement with populations of interest or the setting in which they aspire to focus their career? 3. How does limited/no access to community settings and populations of interest affect students' self-efficacy/confidence in their preparation to carry out entry-level roles and responsibilities as health professionals?

Teaching Identity(ies) Through Food: Cooking Shows Reinforce, Celebrate, Appropriate

Mary Helen Millham, University of Hartford
Diana Rios, University of Connecticut

Food is one way to explore identity(ies) as one moves through the stages of development (Martin & Nakayama, 2010 in Jones, 2021). Courses in the humanities and social sciences both address identity(ies), culture, and society. Since food is not usually examined across the curriculum, integrating concepts of identity(ies) food, interpersonal, and team (group) communication becomes novel and interesting. For example, when does appreciation become appropriation? What do our viewing choices as well as our gastronomic choices say about how we see food as a representation of culture--both our own and others? Whether it is the popular new spice becoming over-prevalent or when a dish becomes so "Americanized" that it's a parody of the original culture--food fads can burn brightly and appetizingly and then become ubiquitous and overbaked. Overall, food is one of the many ways through which we can be "acculturated into our various cultural identities" (Jones, 2021, p. 219). Food can be a soft echo or prominent feature of one's cultural identity. It can connect us back to previous generations through taste or smell. It can be a source of great cultural pride as well as a way to show others "this is part of who I am; this food represents part of what makes me, me" (Jones, 2021, p. 219). Poster content shares pedagogical strategies, descriptions of in-class group assignments, individual questions, and final-term research projects for in-person and online courses.

Teaching Leadership to Undergraduates: The BILD Approach

Arthur Pantelides, Virginia Wesleyan University

We propose to: (1) describe our research into the field of Gen Z attitudes towards leadership and how we have discovered a dichotomous relationship emerging among certain young people in their feelings towards national leadership vs. corporate leadership and effects on their own professional career; (2) outline an integrated leadership development model/program which establishes a comprehensive approach to teaching and developing leadership to undergraduates. We theorize that there is a fundamental disconnect between attitudes of leadership as it pertains to the needs and wants for a strong position of respect for your nation within global society and perhaps the false sense that an authoritarian style leadership will enable this; while at the same time this very idea is rejected when it involves having such a leader as your own company boss. This led us to conceptualize an integrated and holistic approach to leadership development at the undergraduate level. BILD: Business Integrated Leadership Development is a comprehensive approach to building leadership potential through 4 pillars: theory, practice, experience, context. It falls under instructional strategy/design with the goal of developing a holistic view of leadership. In the majority of higher education institutions leadership is taught at the graduate level. With BILD, we establish a modular structure of development much sooner. Desired outcomes with respect to knowledge, attitudes/values, understanding, and skill development are mapped to various methodologies such as lectures, small group discussions, role play, computer simulations, debate, and case studies, as well as on-the-job performance, all under the 4 pillars. We feel that this topic will be interesting and timely for our audience because of several inter-related factors. We are seeing a rise in populism in some parts of the world (even the US) and this in itself has important implications to leadership study.

The audience here is educators in both the traditional liberal arts as well as business curriculums in areas such as political science, management, business strategy, project management/team performance, and others. Our audience will learn how to structure a leadership curriculum to enhance understanding across a multitude of areas and will be able to provide and deliver greater depth and breadth with a direct emphasis on the important interconnection points of thought on leadership.

The Personal Engineering Platform for Take-Home Hands-On Learning

Tom Diller, Diana Bairaktarova, Al Wicks, Steve Southward, Virginia Tech

The hands-on laboratory component of engineering education has been coming under increased strain with limited lab space and teaching resources for ever increasing numbers of students. This has only been heightened by the COVID-19 pandemic with the move to on-line classes at many universities. One solution developed at Virginia Tech is to put the electronics and sensors directly into the hands of each student for them to use "at home". This approach has been named a Personal Engineering Platform (PEP) as an add-on system to laptop computers. PEP units are composed of the MSP 432 microcontroller (Texas Instruments), a specialized daughter board featuring a zero-drift amplifier with analog to digital converter, and transducers and actuators. This provides easy access to directly measure heat flux, temperature, and strain, which are used for real-world convection, conduction, radiation, vibrations, stress analysis, and feedback control experiments. It has been shown to be both preferable by the students and extremely efficient in terms of needed University resources. In lecture courses, students perform hands-on workshops as homework each week as part of the course as a way to reinforce the theory they are presented in the lectures. Putting modern electronics into the hands of students as part of lecture courses like this is a particularly new approach for mechanical engineering. Students have the "hands-on" experience of measuring and calculating real-world events to relate to the theory of the class. The focus of the workshops is not the instruments or data acquisition, but rather observing the physical phenomena. For example, students are encouraged to model and predict the "real world" events by measuring and feeling the effects of heat transfer with the PEP. This allows them to emulate expert practice and simultaneously helps them to correct misconceptions about energy, heat, and thermal equilibrium, for example. Conversely, the material for the laboratory course is focused on the instruments and data acquisition. There students learn about digital data, sampling, and processing of data by creating their own MatLab programs.

Because nearly all of the mechanical engineering students at Virginia Tech are taking both courses during the same semester, the faculty have purposely designed synergy between the courses to coordinate the workshop and laboratory experiments. This is a different approach from the usual laboratory teaching approach by the following: 1) PEP is designed to provide an inductive learning environment centered around student discovery (traditional labs follow a deductive cook-book approach). 2) PEP is integrated into the classroom (traditional labs are treated as separate courses, which prevent students from making conceptual connections between the two). 3) PEP uses heat flux sensors to provide students with direct measurements of heat transfer (traditional labs only measure temperature). 4) PEP helps students connect engineering theory and analysis with the physical world using simple simple experiments that can be measured and explored outside the laboratory room (traditional labs separate understanding from implementation).

The Role of Students in the CREATE/STS NSF Grant

Shannon Conley, Emily York, Bay Cohen, Jacob Dragovich, Alexa Houck, Corgan Jasper, Jessica McMasters, Katelyn Moree, Abby Snodgrass, Charlie Thomas, Danica Tran, Rachel Bczynski,
James Madison University

This poster presentation integrates and analyzes the experiences of undergraduate research fellows participating in the National Science Foundation funded CREATE/STS (Collaborative Research and Education Architecture for Transformative Engagement with STS) project. CREATE/STS is a three year multi-institutional project, with the first year occurring at JMU and in the subsequent years at Colorado School of Mines, Michigan State University, and University of Maryland. CREATE/STS builds on the Creative Anticipatory Ethical Reasoning (CAER) model--a blend of scenario analysis, design fiction, and ethical reasoning--that York and Conley developed first in the classroom (York and Conley, 2020), and subsequently adopted in the on-going Co-Imagining Futures workshop series piloted and developed in the JMU STS Futures Lab since 2018 (York et al., 2019). In Co-Imagining Futures, an invited expert selects a topic from their own research and joins the JMU STS Futures Lab for an interactive CAER process in which undergraduate students co-facilitate a collaborative engagement interrogating the expert's topic in relation to plausible futures. The aim of CREATE/STS is to scale up, experiment with, compare, and test the framework for integrating STEM and humanities curricula in our different 4-year college settings (with JMU and Mines being R2 status and MSU and UMD being R1 status). With an overarching theme of "Imagining a Just Future," in year one, a JMU cohort of student research assistants as well as four faculty from STEM and Humanities/Social Sciences applied and were selected for the first iteration of the project. One anticipated outcome of the project is that each of the faculty participants will have a module for implementation in a spring 2022 course. We ask: To what extent are the modules inflected with insights/content from other disciplines, given our methodology and workshop structure? A key insight that is emerging from this work is that the presence of us, as undergraduate students as co-facilitators and the pedagogical orientation of these interactions open up a space for "pedagogical commonlands" in which participants develop trading zones and interactional competence (the ability to engage with a discipline different from one's own). We will share findings and reflect on our experiences from the fall 2021 semester's series of workshops that aim to facilitate mutual learning and creative, imaginative collaboration amongst faculty and students. We analyze our experiences as undergraduate research fellows participating in the National Science Foundation funded CREATE/STS (Collaborative Research and Education Architecture for Transformative Engagement with STS) project. We present analysis of our experiences as undergraduate researchers and co-facilitators in the CREATE/STS methodological framework, as we seek to collaborate with faculty across disciplines in the context of pedagogy-oriented workshops. We will share findings and reflect on our experiences from the fall 2021 semester's series of workshops that aim to facilitate mutual learning and creative, imaginative collaboration amongst faculty and students.

Undergraduate Research Programs' Impact on Career Readiness Competencies and Engagement

Joe Wirgau, Riley Petroski, Maia Grove, Margaret Pate, Radford University

Undergraduate research has a host of positive outcomes for students, faculty, and universities. In response, universities have invested in expanding access to undergraduate research and creating pipeline programs for growing undergraduate research. This presentation will share assessment data on the perceived student benefits of three distinct research programs at a mid-sized comprehensive public institution. The programs are supported by intentionally designed personal and professional development workshops for student participants and the benefits are discussed through the use of the career readiness competencies as defined by the National Association of College Employers. Undergraduate research has been associated with a host of positive benefits for students and their universities (Lopatto, 2010). Students benefit from improved skills, professional mentoring, and development of transferable skills (Madan and Teitge, 2013), while universities benefits from more diverse and higher quality faculty research (Bangera and Brownell, 2014).

Using Evidence-based Arguments to Debate Research News

Chardai Francis-Martin, Campbell University School of Osteopathic Medicin

The purpose of this project was to evaluate the effectiveness of a novel approach to journal club and to perform a thorough review of the history of journal club to include any recent advancements. A "debate-style" format of journal club using evidence-based arguments to see two side of controversial news articles has enabled a more interactive form of discussion amongst participants than traditional journal club. The "debate-style" format also addresses shortcomings in traditional journal club which include lack of member participation, lack of enthusiasm by participate and discussing one article per meeting. Our objectives were to develop a more engaging style of JC that increases the participation & enthusiasm of amongst students, to encourage students to see 2 sides of a controversial topic after gathering information to support or refute a side and to teach students to take a stand on and defend a position after having adequately prepared beforehand. Overall based on our course evaluations students (n=33) agreed that evidence-based arguments helped to develop their critical thinking skills, ability to analyze data, understand topics and participate in in class discussions. Based on the student feedback, this evidence-based arguments approach to journal club is feasible and effective in addressing the shortcomings of traditional journal club while still fulfilling the major purposes of journal club to improve critical appraisal of scientific literature. Major strengths of debate-style journal club include meaningful engagement of all members, discussion of multiple studies, and further development of communication and problem-solving skills.

Verbal Expressions Used to Describe Curvilinear and Rectilinear Flow Diagrams

Rob Branch, Sicheng Jin, University of Georgia

We report the results of a study in progress that replicates two earlier studies about the effect of graphic element type on verbal expressions that are used to describe complex flow diagrams of content knowledge that were conducted by Branch, Rezabek and Cochenour (1998), and Branch, Man and Shin (2018). We contend that perceptions of complexity are influenced by the type of graphic elements used to compose a flow diagram. This is pertinent to teachers and researchers in higher education because practically all disciplines use flow diagrams to communicate the intricacies of their respective subject matter. The main research question is "Do different flow diagrams conveying the same content elicit similar verbal expressions?" The context for this study is instructional design. Instructional design was chosen because its information is typically depicted as a flow diagram. However, the true complexity of the instructional design process is often under communicated due to the graphic elements selected to represent the content; and the juxtaposition of those same graphic elements. Instructional design processes that truly adopt a systematic approach should express traits of being dynamic, systemic, interdependent, responsive, redundant, and synergistic at the very least.

However, the application of these characteristics is often diminished due to simplistic linear depictions of the true instructional design process. Instructional design activities are rarely undertaken in a linear, lock-step manner. Branch, Rezabek and Cochenour (1998) focused on the contrasting representation of flow diagrams. Branch et al. specifically concentrated on the difference between rectilinear representations of a flow diagram and curvilinear representations of a flow diagram. Branch, Man鬠and Shin (2018) did the same. However, there was an additional focus on maintaining a high positive correlation between the original conceptual framework, a consistent true effort, the original research questions, and the original research design. While we acknowledge that a 100% duplication of a research study is practically impossible, we contend it is still important to seek replication as a way to increase the confidence of an overall research program. Fiedler (2017), claims that "good research findings should be replicable, reflective of a true effort, and based on state-of-the-art statistical analysis" (p. 46). We believe our study reflects a true effort. The new results will be shared with the session participants. Further, we will recommend empirically supported instructional strategies that utilize the strengths of properly juxtaposed graphic element types that can be used to accurately communicate complex concepts through flow diagrams

---

Writerly Trajectory in Higher Education: Some Commonalities and Some Discords

Jagadish Paudel, The University of Texas at El Paso

Writing development is a great concern for all students and teachers in higher education across the world. The path of developing writing may vary widely from one writer to another. Regarding writerly development, a group of scholars from the University of Michigan carried out a longitudinal study under the directorship of Anne Ruggles Gere, Director of Sweetland Center for Writing.

In this presentation, primarily drawing ideas from their work, Developing Writers in the Higher Educations: A Longitudinal Study (2019) edited by Anne R. Gere, the presenter converses on the writing development of undergraduate students, that is, how they develop their writing, how they view writing, and what struggles they go through to emerge, themselves, as competent writers. The presenter communicates to participants that writerly development is multifaceted, something which travels unevenly, irregularly and sporadically, but with some commonalities. To communicate this idea, the presenter discusses the developmental growth of student writers in writing from pre-college to beyond college level, with attention giving to feedback, language level analysis, the conception of academic and creative writing to disciplinary expertise in the writing, and some other related themes. In the presentation, the presenter also discusses briefly his own writerly trajectory from high school to graduate level.

This presentation is highly useful to know how writerly development occurs in higher education before college, in college, and after the college years.

In the presentation, the presenter starts with a brief discussion on writerly development drawing ideas from the book, Developing Writers in Higher Education, and then, the presenter presents his own writerly development trajectory as an ESL writer.

VENDOR PRESENTATIONS

Leveraging Pedagogical Technology for Active Learning Design

Vlad Ster and Mozes Janse, FeedbackFruits

While COVID-19 ignited the process of digital transformation in higher education, educators who are not provided with proper online infrastructures are struggling to reliably support their students across alternating modalities. Pedagogical technology can help cultivate a meaningful, engaging learning experience in varied learning contexts. Instead of disrupting, technology can answer the most pressing needs of educators and support effective teaching strategies. How can we leverage the potential of technology to empower active, engaging pedagogy? Join our session to dive into four stories of successful digitization achieved by educators from four institutions with the help of FeedbackFruits.

360-degree peer feedback: Driving deeper learning and student engagement

Valerie Welborn, Virginia Tech
Dave Liptrot, Kritik

Learn why professors are embracing a model of 360-degree student feedback across all course types and disciplines to drive deeper student learning, higher engagement, and increased student interactions while saving valuable time and resources in the process. This live session features Prof. Valerie Wellborn from Virginia Tech, who joins us to share her experience and insights you can apply today to your teaching practice.
