



Research & Creative Activity Day

Abstract Booklet

April 16, 2026

Office of Research and Sponsored Programs

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WORDS of WELCOME

Welcome!

We are excited to showcase our annual Research and Creative Activity Day at West Chester University, where we highlight the innovative and impactful research being conducted by our outstanding students, faculty and staff. This year we are delighted to share research, works of art, and creative activity through poster presentations and lightning talks. We are also hosting a faculty-student connection event where students will have the opportunity to speak with faculty who have ongoing, active research and creative activity projects, giving students the opportunity to learn more about various research taking place on campus and the possibility to join in on these high-impact opportunities.

Your interest and support are greatly appreciated as we celebrate the dedication and hard work of our researchers. Thank you for joining us in this celebration of knowledge and discovery.

Sincerely,
Dr. Cheryl Neale-McFall
Associate Provost for Research and Creative Activity
West Chester University

LOGOS OF AWARDED RESEARCH



Because West Chester University seeks to be a leader in local, regional, and global sustainability efforts, the Office of Research and Sponsored programs has collaborated with the Office of Sustainability to create a special designation for those Research and Creative Activity Day projects that perpetuate the health and welfare of people, economies, and the environment. Thus, all abstracts identified with *the Brandywine B* reveal the many ways that West Chester University faculty and students are helping to design, implement, evaluate, and improve a variety of environmental, social, and economic sustainability activities.



The Office of Research and Sponsored Programs sponsors an annual Summer Undergraduate Research Institute (SURI) where undergraduate scholars hone critical and analytic thinking skills to prepare for graduate-level studies or careers. SURI scholars work full time under the direct supervision of a faculty mentor for 5 weeks to complete a research project or creative activity. All abstracts identified with the SURI logo reflect SURI projects completed in summer 2025.



The purpose of the SRCA is to recognize outstanding graduate and undergraduate students who have completed original research or creative projects in collaboration with a faculty mentor. SRCA awards are presented to students who have conducted independent work that is original and substantive, given the standards and objectives of their field. Below, you will see the SRCA logo next to the outstanding student projects that were awarded this year.



Student Undergraduate Research Foundation (SURF) is a research and creative activities opportunity for undergraduate students to collaborate with faculty mentors during the Spring semester to promote critical thinking and prepare students for a greater understanding of research and creative activity methods and outcomes. Selected students are provided with a stipend to collaborate alongside their faculty mentor for an opportunity to gain valuable hands-on learning outside of the classroom.

WORKS OF ART ABSTRACTS

Through Her Lens

Presenter: Danice Austin

Presenter Department: Graduate Social Work

Faculty Mentor: Meagan Corredo

Faculty Mentor Department: Social Work

“Through Her Lens” explores intersectionality through the perspective of a young Black girl navigating both internal and external realities. The piece contrasts a muted, structured cityscape with a vibrant, abstract sky to represent the tension between systemic barriers and personal identity. The greyscale environment reflects institutional forces—such as race, gender, and socioeconomic constraints—while the color-filled background symbolizes emotion, imagination, and resilience. The central figure’s expression conveys awareness and guardedness, reflecting the psychological impact of existing within layered systems of oppression. Her oversized glasses serve as a focal point and symbolic lens, representing both perception and distortion. Through this lens, her world is shaped not only by how she sees it, but by how it is constructed around her—often appearing altered or warped when viewed from the outside. Created through digital illustration, this work examines how identity is influenced by environment while emphasizing the individual’s capacity for interpretation and meaning-making. The piece invites viewers to consider how intersectionality shapes lived experience and challenges assumptions about how others perceive and navigate their world.

Currently Untitled

Presenter: Nasha Yisrael

Presenter Department: Business & Management

Faculty Mentor: Kristopher Benedict

Faculty Mentor Department: Arts & Humanities



Visual art has been a form of resistance across cultures for centuries and this project explores how artistic expression can challenge dominant narratives. My vision was to create a painting centered on the visibility, leadership, and resilience of Cherokee women. To develop this work, I researched Native American artists, cultural symbolism, and how Native artists visually tell stories. Studying artists such as Jaune Quick-to-See Smith helped me understand how visual elements can honor cultural identity while resisting colonial narratives. This research guided my design choices, from the composition and color palette to the included patterns and symbols that reflects both cultural respect and personal interpretation. My purpose is to bring awareness to the importance art has on our community and show that it is possible for art to change and abolish unjust ideologies in our society. This project aims to contribute to that change by honoring Indigenous women while encouraging viewers to rethink the narratives they've inherited and to recognize the importance of protecting Native culture today.

POSTER PRESENTATION ABSTRACTS

Investigating Suppression of *C. elegans* Intracellular Pathogen Response by Viral Proteins

Presenter: Rabia Asif

Presenter Department: Chemistry

Faculty Mentor: Jessica Sowa

Faculty Mentor Department: Biology

Viral proteins are essential for a virus to survive and replicate within a host, while the immune response of an organism is responsible for combating the virus. Understanding how viral proteins affect the immune response is important to develop effective treatments to fight the infection. *C. elegans* are a genetic model organism because of their homology to humans and innate immune response that protects against stress and intracellular pathogens. The only known virus that infects *C. elegans* is the Orsay Virus. It has four viral proteins including RDRP (RNA-dependent RNA polymerase), capsid, alpha-delta, and delta proteins. This study will investigate the effects of capsid and alpha-delta proteins on the intracellular pathogen response (IPR) in *C. elegans*. Dr. Sowa's previous research suggested that the Orsay Virus suppresses the IPR, so we believe that one or more of the viral proteins are suppressing the IPR. We will use genetically modified strains that contain a heat shock promoter driving an Orsay viral protein. These strains will be treated with bortezomib, a proteasome inhibitor, to compare the IPR activation levels with and without heat shock-induced viral protein expression. Pals-5, a gene that is upregulated when the IPR is activated, will be measured using qPCR to represent the IPR levels. We expect to identify the viral protein(s) that are responsible for IPR suppression. This project will expand our understanding of how viral proteins affect the immune response and could help create treatments to overcome suppression of the immune system.

Seeing Through Their Lenses: Employing Photovoice to Examine the Perspectives of Kindergarten Teachers in Implementing Purposeful Play for Children’s Academic and Developmental Learning

Presenter: Subarna Basu

Presenter Department: Educational Leadership and Higher Education Administration

Faculty Mentor: Heather Schugar

Faculty Mentor Department: Educational Leadership and Higher Education Administration



The cognizance of learning through purposeful play is a crucial component of early childhood education as it supports the holistic development of children. The successful implementation of play-based learning is dependent on teachers' positionality, beliefs, and confidence in using these methods effectively. Extensive research focuses on teachers' insight, definitions, or concept of play-based learning (Cheng, 2012; Fesseha & Pyle, 2016; Pyle et al., 2018). However, there is limited understanding of teachers' perspectives regarding play-based learning in kindergarten classrooms and how to encourage teachers' motivations to integrate purposeful play into the curriculum. This study focused on kindergarten teachers' perspectives on the implementation of purposeful play for children's academic and developmental learning, the barriers and enhancers in this process, how teachers' own play history and confidence impact their teaching, and the need for relevant training and professional development. The study employed Paulo Freire's Critical Pedagogy theory and Constructivist theory to examine their lived experiences through critical self-reflection and sharing of best practices. This qualitative study employed photovoice methodology as participatory action research where kindergarten teachers collected photographs based on prompts, provided narratives, and used storytelling and reflection to discuss visual images in a structured focus group. The photographs and participant narratives represented five themes: interpreting play as a purposeful practice; pedagogical intentionality and instructional design; assessing learning through play; teacher agency, confidence, and professional growth; and navigating structural and administrative contexts. The data provided insight into teachers' play culture and readiness to implement child-centered and scaffolded purposeful play activities.

Understanding Modern American Politics through Identity and Pop Music between 2018 and 2025: A Musicological Analysis

Presenter: Emilyn Bedell

Presenter Department: Music Theory, History, and Composition

Faculty Mentor: Ha Young Lee

Faculty Mentor Department: Music Theory, History, and Composition



This project studies how music impacts our society by examining the ways popular musicians (Taylor Swift (b. 1998), Chappell Roan (b. 1989), and Hozier (b. 1990)) imbue their songs with their identity to discuss issues specific to them. Taylor Swift is paired with women's rights, Chappell Roan with LGBTQ+ issues, and Hozier with war. Their music engages their authentic self and social interests, effectively communicating their artistic and social values to their audience. These artists recently became popular, so there is less established musicological research focused on them. To explore deeper, I draw on cultural sources such as newspapers and magazines, in addition to academic journals and books. I also analyze their music and videos alongside recorded interviews to understand the sociopolitical issues for which each artist advocated. Taylor Swift typically avoids musical and political risk. Chappell Roan is stylistically bolder but acknowledges her political shortcomings outside of music. Hozier makes daring statements musically and through personal appearances. These results highlight the power of popular musicians. Though many fans agree with what they say, there are countless who disagree and turn to hate. Even though the times are tumultuous today, all of these groups, the feminists, the pro-LGBTQ+ groups, the pacifists, all have to work together to make sure that happens. Musicians advocate in ways that reflect their identity, better influencing their audiences to make sociopolitical change.

The Impact of Land Use Change on Water Quality in Pennsylvania Streams: Development - Enhancement or Deterioration?

Presenter: Kelsey Biehn

Presenter Department: Environmental Health Science

Faculty Mentor: Melanie Vile

Faculty Mentor Department: Environmental Health Science



High water quality is essential to all life on Earth, including healthy, uncontaminated streams. With increasing rates of declining attaining water, and an incline in developed land and impaired water in Pennsylvania, further research is needed to determine if these events are correlated. This research aims to determine how land use impacts water quality in Pennsylvania streams. I selected three study streams based on their watershed's majority land use; one for each major land use: built area, crops, and trees. For each stream, I performed a rapid bioassessment, which was scored based on specified categories, in field water quality tests, and lab analysis of nutrient concentrations for twelve water samples. Laurel Run, the forested site, scored the highest on the rapid bioassessment, while Goose Creek, the built site, scored the lowest. All six water quality parameters were significantly different between the three streams, with Laurel Run testing lowest for all but one water quality parameter, and Goose Creek testing highest for all but one parameter. The forest watershed had the healthiest and least contaminated stream, while the agriculture and built watersheds had negative impacts on stream water quality. The results of this study show that the land use cover changes and water impairment data are correlated and that land use does impact the water quality of the watershed's stream. Widespread understanding of the implications that development has on our water quality and action to protect against increased development is needed to ensure Pennsylvania's water quality does not continue to deteriorate.

Dual Language Learner Status in Relation to Cortisol for Children in Head Start Preschool

Presenters: Keala Bratsch, Maya Marcus

Presenters Departments: Psychology, Psychology

Faculty Mentor: Eleanor Brown

Faculty Mentor Department: Psychology

Early childhood education (ECE) has well documented school readiness benefits, especially for children facing economic hardship. Yet preschool context poses challenges that are associated with elevated stress levels and potential long-term tax on physiological systems that respond to stress. The present study examined dual language learner (DLL) status in relation to levels of the stress hormone cortisol among low-income children attending Head Start Preschool programs. Participants included 207 children ages 3-5 years who attended preschool in 2021-22 (60.9% attending a dual-language learning school, 39.1% attending an English-instruction-only preschool; all participants meeting the criteria for low-income), and their parents or primary caregivers. Parents or primary caregivers completed demographic interviews that provided information about child language status. Cortisol was measured via salivary assays at 5 times per day on 3 different days. An ANCOVA including child age and income-to-needs as covariates yielded a statistically significant overall model, with DLL status emerging as a statistical predictor of cortisol output across the day as represented by Area Under the Curve with Respect to Ground (AUCg). Counter to study hypotheses, children designated as DLL showed lower overall cortisol output. In post-hoc analyses, separate ANCOVA models for children at the dual language versus English language only preschool suggested that the lower stress levels were unique to the dual language preschool. These findings underscore the importance of considering preschool language context when examining the associations between language status and stress physiology in early childhood.

Telehealth Music Therapy for Persons with Dementia and Family Caregiver Involvement

Presenter: Aliah Chinofsky

Presenter Department: Department of Music Education and Therapy

Faculty Mentor: Eun Sil Suh

Faculty Mentor Department: Department of Music Education and Therapy

Dementia is an umbrella term for neurodegenerative diseases that significantly impact the quality of life of both individuals with dementia and their family caregivers through neuropsychiatric symptoms and social isolation. Many individuals face barriers to in-person services due to mobility, behavioral symptoms, or geographic limitations. The purpose of this scoping review is to examine existing research on telehealth music therapy for individuals with dementia, identifying intervention types, caregiver involvement, and reported emotional and social outcomes, as well as gaps in the current literature. Data were collected from multiple databases, screened after duplicate removal, and analyzed to compare music therapy interventions, telehealth delivery methods, caregiver involvement, and reported emotional and social outcomes. Telehealth music therapy shows promise for improving emotional well-being, social connection, and caregiver-client relationships among individuals with dementia, particularly in isolated settings. However, further research is needed to address technological barriers and expand its clinical applications.

The School Counselor's Role in Raising Responsible and Safe Digital Citizens

Presenter: Averi Clarke

Presenter Department: Counselor Education

Faculty Mentor: Karen Dickinson

Faculty Mentor Department: Counselor Education



The goal of this poster is to demonstrate opportunities for school counselors to incorporate digital literacy in their comprehensive counseling programs. By doing so, school counselors can foster safe and responsible digital citizenship amongst students. The poster evaluates free online digital citizenship programs and curricula that target schools and teachers to align them with the goals and standards of school counselors as outlined by the American School Counselor Association. The poster acknowledges the gap in safe digital practices among today's students and proposes interventions to mitigate potential harm and challenges to students, families, and communities. The poster outlines previous prevention strategies and how their validity has changed over time. Now, school counselors are tasked with providing immediate and reactive counseling to students regarding digital practices neither they or the students are familiar.

Identifying Discrepancies in Music Audition and Performance Practices

Presenter: Miles Cressley

Presenter Department: Music education

Faculty Mentor: Angela Guerriero

Faculty Mentor Department: Music therapy



Identifying Discrepancies in Music Audition and Performance Practices is a study investigating into the current “standard” practices of music audition and performance practices. There are noted discrepancies in music auditioning and performance practices for students with disabilities. Through learning about these barriers, we can work towards a more universal and fair procedure for music auditions and performances for all students. There are current challenges and gaps in the literature, which lacks standards and guidance for music educators, and the existing research lacks uniformity and standards. In current practice students may receive classroom accommodations, but they are not always applied in music audition settings. By learning about current practices, more information can be used to better inform recommendations for adapted procedures. This student participant survey highlighted that 100% of the student respondents receive accommodations in an academic setting. However, in a musical setting 40% did not receive any accommodations. With this data, and other data collected the aim is to continue study current practices to help conceptualize a new, more inclusive standard.

Rhythmic Foundations: Advancing Standardized Percussion Education in Music Therapy

Presenter: Samantha Cundiff

Presenter Department: Music Therapy

Faculty Mentor: Angela Guerriero

Faculty Mentor Department: Music Therapy



Currently, there is no standardization of percussion education in music therapy programs, which may negatively affect client outcomes. Despite percussion being a key skill for board-certified music therapists (MT-BCs), around half of U.S. bachelor's programs lack a dedicated percussion class. This study investigated how percussion is used in clinical settings and aims to support educational standardization to improve therapist training and client care. This study builds on prior SURF research, data analysis of videos from a percussion-specific Music Therapy group using the Rhythmic Acuity Measurement Scale (RAMS) (Matney & Das, 2019). I had a double role as researcher and co-facilitator during live sessions in this SURI project. As a percussion and music therapy major, I used my specialized background to design percussion-based music therapy experiences focused on clients' physical and cognitive development through rhythmic skill-building. The sessions were held at WCU's Arts Annex with expanded instrument access and better accommodations. The data was analyzed through the RAMS. Results included a shift in morale and confidence. The clients engaged more with each other and became more confident with the music through researcher led improvisation. There was a positive benefit overall for both the clients and the music therapist. The participants' overall comments were positive, saying that they enjoyed all aspects. According to the co-facilitating MT-BC, she previously led some improvisation work one-on-one with some participants but she had never done improvisation with a group. The study generated new ideas and supported advocacy for stronger percussion education in university music therapy curricula.

Examining the Relationship between Cognitive Reflection and Partisan Bias

Presenter: Ian Dargitz

Presenter Department: Psychology

Faculty Mentor: Lia O'Brien

Faculty Mentor Department: Psychology

The intent of the study was to examine contributing factors to political bias, in particular the role of cognitive reflection. We hypothesized that in an explicitly partisan context, cognitive reflection would be predictive of greater bias. Participants completed the cognitive reflection test (CRT). They then read a prompt claiming that people with either conservative or liberal beliefs tended to score higher on the CRT, using either explicitly partisan (e.g., "Medicare for All") or relatively neutral language (e.g., "low-cost health insurance.") After reading this prompt, they were asked whether they believe the CRT is a valid measure of reflective ability. Participants also completed a measure of their political affiliation. Political affiliation was not an effective predictor of cognitive reflection, i.e., neither liberals nor conservatives were inherently more reflective. The interaction effect between CRT scores and the use of partisan language was greater than the individual effect of partisan language alone, suggesting that people with higher levels of cognitive reflection reacted more strongly.

Food additive literacy among young adults: assessing the efficacy of a brief educational intervention

Presenters: Ethan Farkouh, Amir Golmohamadi, Samantha Sassi, Maeve Zeloye

Presenters Departments: Interdisciplinary, Nutrition, High School Student Researcher

Faculty Mentor: Amir Golmohamadi

Faculty Mentor Department: Nutrition



College students and others often make food choices independently, lacking formal knowledge of food science, and misconceptions about food additives are common in this group. This study assessed whether a brief, structured educational intervention could improve knowledge of food additives and clean label terminology among individuals aged 18 to 30. A pre-post survey design was employed with 29 participants recruited through college networks. Participants completed a 10-question knowledge assessment, received a one-page educational handout covering additive functions, safety classifications, and clean label marketing, and then retook the same assessment. Demographic data collected included gender, age, self-reported prior knowledge, concern about additives, and label-reading frequency. At baseline, 72% of participants identified their knowledge as basic or moderate, 27.6% expressed no concern about additives, and nearly 42% reported rarely or never reading ingredient labels. Pre-intervention accuracy across knowledge questions averaged 51%, with individual question scores ranging from 10.3% to 51.7% correct. Following the educational session, aggregate accuracy rose to 97.6%, representing a 46.6 percentage point improvement. Every question reached at least 93.1% correct post-intervention, with three questions achieving 100% accuracy. These results indicate that even a single, low-cost educational exposure can substantially close knowledge gaps related to food additives. The findings support the inclusion of targeted food literacy content within undergraduate health curricula and suggest that accessible, science-based materials hold strong potential for improving consumer understanding at scale.

Poster Title: Development of a Single Session Intervention for Youth ADHD

Presenters: Jessica Frantzen, Eneida Vega, Yida Ramirez-Alvarado, Vanessa Chery

Presenter Departments: Psychology

Faculty Mentor: Stevie Grasseti

Faculty Mentor Department: Psychology

Attention Deficit/Hyperactivity Disorder (ADHD) is a common neurodevelopmental disorder that affects about 11% of youth in the U.S. (1) and can impact lives negatively when left untreated. While effective therapeutic interventions exist to treat ADHD, they are time intensive and may be inaccessible to the many youth who need them. Single session interventions (SSIs) are abbreviated therapies that target mental health concerns through evidence-based practices (EBPs) (2), improving treatment accessibility and efficiency. SSIs have been shown to reduce symptoms of social difficulties, functional impairment, and parental stress for youth and their caregivers (3, 4, 5). The effects of these SSIs are comparable to longer-term interventions. A recent umbrella review of SSI efficacy for mental health problems and service engagement demonstrated that SSIs can be effective for children and youth in improving outcomes in externalizing behaviors and service engagement such as anxiety, executive function and continued service engagement post treatment (6, 7, 8, 9, 10), suggesting that they offer valuable and effective services for those who are experiencing these concerns. No studies to date have tested how existing treatments for ADHD can be distilled into SSIs. Our scoping review of 43 peer reviewed articles and other sources on standard-length evidence-based ADHD treatments reports on 1) treatment effectiveness and 2) components included in effective treatment. Then, we present session plans we developed for three SSI (psychoeducation, caregiver stress management, & skill training) to efficiently address ADHD symptoms. Finally, we propose a study to compare these three SSIs to each other

Impact of Act 39 & COVID-19 on the Pennsylvania Alcohol Industry

Presenter: Cierra Gardyan

Presenters Departments: Economics, CBPM

Faculty mentors: Simon Condliffe and Matt Saboe

Faculty Mentor Departments: Economics, CBPM

Abstract: Pennsylvania is a major producer of beer and wine, and both industries have grown rapidly over the past twenty years. The number of breweries increased from 20 in 2003 to 244 in 2024, while wineries grew from 37 to 186 (Bureau of Labor Statistics). Simultaneously, employment at breweries surged from 1,016 in 2003 to 5,200 in 2024, while employment at wineries grew from 878 in 2013 to 2,263 in 2024. This study provides an analysis of Pennsylvania's beer and wine sectors and examines how recent policy changes and economic shocks have influenced their growth. Understanding these effects is timely given the industries' expansion and two major disruptions: the passage of Pennsylvania Act 39 of 2016 and the COVID-19 pandemic. Act 39 substantially revised Pennsylvania's Liquor Code, expanding retail availability and creating new permits and licensing categories, thereby changing the regulatory environment for alcohol producers and retailers. In contrast, COVID-19 temporarily halted economic activity statewide, disrupting production, sales, and employment in both sectors. We analyze how Act 39 and COVID-19 impacted employment trends in breweries and wineries using interrupted time series regression.

Building Clinical Confidence: The Impact of Simulation Training on Anxiety in Clinical Psychology Students

Presenter: Abigail Gehring, Emma Slade, Abria Thompson, Jenna Loquercio

Presenters Departments: Psychology CSM

Faculty Mentor: Stevie Grassetti

Faculty Mentor Department: Psychology CSM



Abstract: Simulation training enhances student learning by creating a realistic opportunity to practice responding to challenges with standardized patients (Elendu, 2024), yet engaging in these learning experiences in front of peers and professors can be anxiety-provoking. Clinical psychology doctoral students are at a high risk for anxiety and burnout due to rigorous academic expectations, which in turn can negatively affect memory consolidation, decision-making, and overall professional performance (Worst & Thompson, 2024). Placing students in increasingly challenging simulations and exposing them to a wide array of realistic scenarios builds self-efficacy and familiarity while reducing anxiety (Glatz et al., 2022). This pilot study presents data from 27 graduate students completing simulation exercises to assess whether baseline anxiety declines with increased simulation experience. Participants completed the State-Trait Anxiety Inventory before and after simulation exercises, allowing assessment of immediate changes in anxiety following a single simulation and the effects across multiple simulations (Spielberger, 1983). This research is presented as part of a larger developing project; presentation at RCAD is intended to gather feedback to further inform and refine the study's design and direction. Data collection is ongoing, and additional participants are needed to draw meaningful conclusions. Preliminary paired-samples t-test results indicate no significant changes in anxiety from pre-simulation ($M = 44.74$) to post-simulation ($M = 45$) during the students' first simulation experience, $t(26) = 0.304$, $p = .382$, possibly due to the small sample size and limited simulation exposure. Implications of this finding and directions for future research will be discussed.

Teaching with Primary Sources: Arts and Place-based Pedagogical Research for Educators

Presenters: Anne Gill, Subarna Basu, Pauline Schmidt

Presenters Departments: Secondary Education, Graduate Student- Department of Educational Leadership & Higher Education Administration, Secondary Education

In this poster session, participants will learn about the experiences of K-12 teachers who participated in place-based professional development that integrated primary sources, local history, and the arts. This research project, funded by a grant from the Library of Congress, connects critical thinking, history, and literacy through art workshops, storytelling or personal narrative sessions, and site-specific activities held at the Hagley Museum, the Michener Museum, the Brandywine River Museum, the Mercer Museum, and the Winterthur Museum. By integrating local culture and history, this research study provided educators with an opportunity to enhance their teaching practices through experiential learning, peer collaboration, and the consideration of pedagogical applications of primary sources in their respective fields. At a time when education and educators are under attack, professional development opportunities like this rejuvenate teachers and help them bring joy, creativity, and imagination to their classrooms. Using a qualitative design, data for this study were collected through questionnaires, focus groups, and field notes. Early data analysis indicates that educators who attended the professional development sessions appreciated building community and connecting with educators across grade bands, and that they left with tangible classroom strategies.

Marking as Defined by Estill Figures

Presenter: Kara Goodrich

Presenter Department: CSD

Faculty Mentor: Elizabeth Grillo

Faculty Mentor Department: CSD



Marking techniques are used by singers during rehearsals to reduce fatigue, minimize strain, prevent overuse injuries, and preserve the voice for performance. Marking strategies include reduced volume, octave displacement, lighter registration, selective singing, speaking, whispering, or silent mouthing. These methods vary widely across voice types and lack standardization; therefore, the current study's purpose is to define marking techniques used by professional opera singers across voice types and to analyze such techniques by the Estill Voice Model (EVM). Current marking practices rely on vague descriptors such as "lighter" or "softer," which offer little guidance and risk ineffective vocal preservation. This lack of clarity can lead to vocal strain and potential injury, threatening career longevity and success. By defining marking techniques used by professionals and applying such techniques to EVM, communication and training can be enhanced by linking implicit prompts (e.g., quieter voice, lighter sound) to explicit voice anatomy and physiology (e.g., True Vocal Fold Body - Cover Figure Thin Option). Ultimately, the long-term goal is to establish a standardized, evidence-based marking approach that promotes vocal health and ensures long-term performance sustainability.

Contexts of Control and Violence: Understanding Disclosure Reluctance of Commercial Sexual Exploitation in Childhood

Presenter: Juliet Gottlieb

Presenter Department: Psychology

Faculty Mentor: Quincy Miller

Faculty Mentor Department: Psychology



We examined retrospective reports of disclosure among adults with self-reported histories of commercial sexual exploitation in childhood ($N = 58$, $\text{Mage} = 36$ years). Many participants (67%; $n = 39$) reported having a pimp who facilitated their involvement in the exploitation and took a portion of the money they earned. Among those participants, the vast majority (85%; $n = 34$) indicated that the pimp was violent toward them. Common victim-pimp relationships included romantic partners (21%; $n = 8$), friends (18%; $n = 7$), and parents (13%; $n = 5$). Over half of participants (62%; $n = 36$) reported having contact with law enforcement during their exploitation. Among those who indicated law enforcement contact, 53% ($n = 19$) reported that they were questioned about their exploitation. Of those questioned, 74% ($n = 14$) reported denying the exploitation throughout the questioning process. Common reasons for denial included fear of negative consequences (e.g., arrest, not being believed), shame, and failure to recognize that they were being exploited. Among participants who reported no law enforcement contact, 55% ($n = 12$) reported disclosing informally to someone prior to the survey. Common reasons for disclosure reluctance included fear of getting in trouble, embarrassment, needing the money, dependence on drugs or alcohol, fear of arrest, and feeling the exploitation was their fault. These findings suggest that commercial sexual exploitation in childhood often occurs within contexts that are controlling, violent, and embedded within interpersonal relationships, which may constrain both recognition of exploitation and willingness to disclose.

Saying "Yes, and" to the Unknown: Drama Improvisation and Tolerance of Uncertainty in Middle School Students

Presenter: Kaylee Grazul, Bobo, Rachelle; Reilly, Owen

Presenters Departments: Psychology

Faculty Mentor: Stevie Grasseti

Faculty Mentor Department: Psychology

Abstract: Research indicates that intolerance of uncertainty is strongly associated with mental health concerns such as anxiety and depression (Morriss, 2024, 2025; Kienzler, 2025). Emerging evidence suggests that improvisational training may increase individuals' tolerance for uncertainty (Felsman, 2023). As such, the aim of this poster is to examine the impacts of drama improvisation on tolerance of uncertainty. This poster is part of a larger study which examines the broader impacts of drama improvisation on middle-school-aged youth in an after-school program. As part of the study, middle-school students taking part in an after-school program engaged in a six-week-long drama improvisation program following a standardized manual. Participants ($n = 35$) attended between 0-6 sessions and completed questionnaires during session one (pre-test) and session six (post-test) of the program to report on their tolerance of uncertainty. Tolerance of uncertainty was measured using the Intolerance of Uncertainty Scale for Children-12 (IUSC-12; Cornacchio et al., 2018). Items in the measure were then reverse-scored to reflect tolerance of uncertainty. We hypothesize that greater attendance would predict a greater change in tolerance of uncertainty. In other words, students with higher attendance will have higher levels of tolerance of uncertainty from time one to time two. A linear regression determined that attendance ($M = 6.06, SD = 2.72$) in the drama improvisation program statistically significantly predicted a change in tolerance of uncertainty, $F(1, 33) = 16.81, p < .001$.

How Religious Trauma Impacts the Sexual Health of Young Adults Ages 18 to 24

Presenter: Joandra Gurian

Presenter Department: Public Health Sciences

Faculty Mentor: Zeinab Baba

Faculty Mentor Department: Public Health Sciences

The purpose of this systematic literature review was to identify the relationship between religiosity within sexual health and mental health, to address this complex issue and the impact it has on adults. A literature review, along with multiple linear regressions and cross-sectional design, was conducted and found that there is a direct correlation between religiosity and sexual and mental health, often impacting individuals negatively. Those who are impacted by religious trauma and religiosity have been found to have negative mental health outcomes, including complex post-traumatic stress disorders, as well as an increase in depression, an increased risk of substance abuse, and more.

Bacterial Identification and Characterization of Immune Responses in Wild Nematodes

Presenter: Joslyn Haughey

Presenter Department: Biology

Faculty Mentor: Jessica Sowa

Faculty Mentor Department: Biology

Nematodes are widely used model organisms for studying host-microbe interactions due to their conserved innate immune pathways, genetic tractability, and transparent body plan. *Caenorhabditis elegans* has contributed significantly to understanding innate immune signaling pathways, including MAP kinase and insulin-like signaling cascades, which share similarities with immune mechanisms in higher organisms. In natural environments, nematodes encounter diverse microbial communities and may harbor bacterial infections that influence their physiology and survival. However, many studies have focused on single pathogens under laboratory conditions, with less attention paid to bacteria naturally associated with wild nematodes. Here, we investigate the presence of bacterial infection in wild nematode strains and aim to characterize host responses to naturally occurring microbial associations. Fluorescence in situ hybridization staining confirmed the presence of bacteria in multiple wild nematode strains. Genomic DNA was extracted from these strains, and PCR amplification targeting the bacterial 16S rRNA gene was performed to detect bacterial DNA. A clear PCR amplicon of approximately 444 base pairs, corresponding to the expected size of the 16S primer set (341f/785r), was obtained for one strain, indicating amplifiable bacterial DNA. PCR amplification for the remaining strains will be repeated to confirm detection. Future work will include sequencing of 16S rRNA amplicons, followed by BLAST analysis to identify bacterial taxa. Host immune responses will also be examined through RNA extraction, cDNA synthesis, and qPCR analysis of immune genes. Together, these experiments will help characterize bacterial associations in wild nematodes and provide insight into host responses to naturally occurring microbial infections.

Cell Phones and College Students' Level of Attention to Academics, Social Relationships, and Physical Activity: A Case Study

Presenter: Nicole Istvan

Presenter Department: EDD

Faculty Mentor: Heather Schugar

Faculty Mentor Department: EDD

This study utilized a single case study design to examine how college students, ages 18–24, perceive their attention in relation to cell phone use within academic, social, and physical activity contexts. The case was bounded by undergraduate students enrolled at a public university in the northeastern United States. The study employed multiple sources of data to support triangulation and credibility, while providing an in-depth exploration of a complex, real-world phenomenon. Data collection included ethnographic field notes, a quantitative survey, and semi-structured interviews. Following Institutional Review Board approval, participants were recruited using purposive and snowball sampling strategies through community flyers and social media outreach. Survey data (n=53) was collected via Qualtrics and analyzed using SPSS software. Qualitative data was obtained via six voluntary virtual interviews and campus observations, then transcribed and analyzed using thematic coding in Dedoose software. Quantitative and qualitative findings were then integrated using a side-by-side comparison model. Results indicated that college students use their cell phones for a variety of purposes and incorporate various apps. They reported both advantages and drawbacks, while offering intervention strategies to combat the addictive nature of cell phones and social media platforms. The findings of this study contribute to a deeper understanding of how college students perceive the influence of cell phone use on attention and engagement across specific domains of daily life.

The Impact of Folic Acid Exposure on Eye Regeneration in Planaria

Presenter: Amari Jackson

Presenter Department: Biology

Faculty Mentor: Jessica Sullivan-Brown

Faculty Mentor Department: Biology



Regeneration is an important process in tissue healing after an injury or disease. Humans are notoriously poor at regeneration, resulting in sustained tissue damage. To better understand regeneration, we are using flatworm planaria as a model system because planaria can regenerate almost any tissue in their body. Folic acid is an essential B vitamin that is known to have roles in DNA replication and amino acid synthesis. Our hypothesis is that if planaria are exposed to high levels of folic acid, then rates of regeneration may increase. In Dr. Sullivan-Brown's lab, a master's student was experimenting with folic acid levels and planaria regeneration. In her trials, she noticed that the eye regeneration process was impaired when the planaria was exposed to high levels of folic acid, contrary to our hypothesis. There were instances of cyclopia where the planaria developed only one eye rather than two, abnormal eye regeneration where there were two eyes, but they were extremely close to each other, and asymmetrical eye regeneration. The goal of this experiment is to repeat this study with a higher sample size and more quantitative analysis to determine if this relationship is statistically significant. We will also be

experimenting with lower levels of folic acid to prevent toxicity. These results may help us better understand nutritional influences of regeneration.

Giving back

Presenter: Anis Jaouad

Presenter Department: Health Sciences

Faculty Mentor: Anis Jaouad

Faculty Mentor Department: Health Sciences

Digital platforms play an increasingly influential role in shaping personal identity, mental well-being, and future opportunities, particularly for students and athletes whose visibility is often heightened. This project explores digital footprint awareness and its relationship to online behavior, psychological stress, and long-term academic and career implications. The purpose of this work is to examine how individuals understand the permanence and impact of their digital presence and how that awareness influences decision-making, self-regulation, and mental health. Using a mixed-methods design, participants will complete an online survey assessing digital footprint knowledge, social media behaviors, and perceived pressure related to online reputation. A subset of participants will also engage in semi-structured interviews to provide deeper insight into personal experiences with digital identity, public scrutiny, and self-presentation. Quantitative data will be analyzed using descriptive and correlational methods, while qualitative responses will be thematically analyzed to identify common patterns and concerns. Anticipated outcomes include identifying gaps in digital footprint awareness and demonstrating that greater awareness is associated with more intentional online behavior and reduced anxiety related to social media use. The findings aim to highlight digital footprint management as a critical life skill that intersects with mental health, performance, and professional development. This project contributes to growing conversations around ethical digital engagement and supports the integration of digital literacy education into academic, athletic, and mental performance programs.

Same Coping Skills, Different Environment: How Coping Strategies of Undergraduates Exposed to Childhood Stressors Affects Adjustment to College

Presenter: Peace Joel

Presenters Departments: Psychology

Faculty Mentor :Dr. Lauren Brumley

Faculty Mentor Department: Psychology, CSM



Abstract: Many children grow under constant exposure to non-traumatic stressors, consequently they develop coping strategies as a form of self-protection. However, they might remain unaware of their reliance on coping strategies and struggle when faced with different stressors like the ones involved in college. The purpose of this study is to examine if coping strategies developed in the context of childhood stress are effective for coping with college-related stressors.

Participants (n=189) filled out a Qualtrics survey during the Spring 2025 semester. The survey included validated measures of stress, coping, and college adjustment. Data was analyzed in SPSS by running correlations and mediation analysis using regression via the PROCESS macro.

The coping strategies associated with difficulties adjusting to college and higher childhood stress were Avoidant, Emotion-focused, and Self-blame coping. Avoidant coping and self-blame coping significantly mediated the relationship between greater childhood stress and worse adjustment to college. We hope that this information helps colleges equip students with coping mechanisms better suited to dealing with the stressors of college, eventually reducing the dropout rates of first year students.

Self-Awareness and Self-Aware(ish): Undergraduate Perspectives on Self-Awareness

Presenter: Layla King

Presenter Department: English Education

Faculty Mentor: Zachary Wooten

Faculty Mentor Department: Honors College



Self-awareness, often described as the consciousness of one's motives, lacks a consistent definition due to its contextual nature. This study explores how traditional undergraduate students at West Chester University perceive self-awareness, particularly within the social environment of a college campus. Using an interpretive phenomenological approach (IPA), the study engaged 16 traditional undergraduate students in four focus groups. Each session lasted under an hour, and participants were recruited via convenience sampling. Participants' responses were organized into five major themes, each corresponding to the research questions of the study. The themes are as follows: Self-Awareness Is:, Self-Awareness at West Chester University, Influences on Self-Awareness, Qualities of Self-Awareness, and Self-Awareness on and off Campus. On the whole, participants described self-awareness as an evolving, individual experience shaped by both interpersonal interactions and past experiences. While self-awareness is deeply individual, it is also shaped by social and cultural influences. This impact can be observed on the West Chester University campus, as students hold peers to certain social standards that influence self-awareness. These insights can inform how universities approach the facilitation and education of social development and inclusivity within student communities—recognizing the diversity in how self-awareness manifests and evolves.

Assessing Dysphagia in the NICU

Presenter: Sydney Krough

Presenter Department: Communication Sciences and Disorders

Faculty Mentor: Sarah Moreau

Faculty Mentor Department: Communication Sciences and Disorders



Feeding difficulties and dysphagia are highly prevalent among neonates in the Neonatal Intensive Care Unit (NICU), posing significant risks to growth, development, and long-term feeding success. These medically fragile infants often face multiple challenges that can complicate oral intake, nutrition, and overall health. Speech-language pathologists (SLPs) play a critical role in identifying and addressing swallowing impairments, making the use of effective and relevant assessment tools essential for supporting optimal feeding outcomes. This research examines the potential of Fiberoptic Endoscopic Evaluation of Swallowing (FEES) as a targeted assessment tool in the NICU. Although increasingly used in pediatric populations, FEES remains underutilized in the NICU, and its specific benefits for neonates have yet to be fully explored. By evaluating its diagnostic sufficiency and clinical utility, this study investigates whether FEES can provide actionable, real-time information to guide individualized feeding strategies. The findings aim to inform broader adoption of FEES in NICU practice, promoting proactive neonatal dysphagia management, enabling safer and more effective feeding interventions, and ultimately improving outcomes for this vulnerable population.

Connecting Classroom Physics to Real -World Research: A Citizen Science Approach in AP Physics 1

Presenter: Heather Landgarten

Presenter Department: Geoscience

Faculty Mentor: Marc Gagne

Faculty Mentor Department: Geoscience

This study examines the integration of citizen science projects into an AP Physics 1 curriculum to promote student engagement with authentic scientific practices, including interaction with real datasets, analysis of uncertainty, model comparison, and communication of findings. While Advanced Placement (AP) courses emphasize evidence-based reasoning and independent thinking, opportunities for students to participate in real-world research are often limited. This project addresses that gap by incorporating structured citizen science experiences following the AP exam, when traditional instruction has concluded. The study investigates the impact of this integration on students' engagement with scientific inquiry and their interest in future research participation. Students will complete citizen science projects aligned with AP Physics concepts during the final month of the course. Data will be collected through surveys and reflective measures assessing engagement, perceptions of scientific practices, and interest in research. Findings aim to inform the use of citizen science as a pedagogical tool and its potential to increase interest in scientific research.

Labor Force Reintegration and Economic Outcomes of Justice-Involved Adults in Pennsylvania's Rural Counties

Presenters: Levi Lewis, William Stone, Ciara Gardyan

Presenters Departments: Economics & Finance, Economics, Economics

Faculty Mentor: Matt Saboe

Faculty Mentor Department: Economics



As rural Pennsylvania counties face declines in both population growth and labor force, economic growth has stagnated. This project examines how labor shortages could be mitigated through reintroducing justice-involved adults into the labor force. Utilizing the newly available Justice Outcomes Explorer (JOE) dataset, we analyze the outcomes of justice-involved adults such as employment rates, earnings, healthcare uptake, poverty rates, and recidivism across Pennsylvania's rural and urban counties. This data allows us to examine how factors such as race, gender, age, and offense type influence post-release outcomes. By focusing on rural counties, we provide data to assist policymakers in understanding for which groups criminal justice reform has been effective and what work remains.

Evaluating the Limitations of Local LLMs in Solving Complex Programming Challenges

Presenter: Kadin Matotek

Presenter Department: Computer Science

Faculty Mentor: Linh Ngo

Faculty Mentor Department: Computer Science



This study examines the performance of today's open-source, locally hosted large-language models (LLMs) in handling complex competitive programming tasks with extended problem descriptions and contexts. Building on the original Framework for AI-driven Code Generation Evaluation (FACE), the authors retrofit the pipeline to work entirely offline through the Ollama runtime, collapsing FACE's sprawling per-problem directory tree into a handful of consolidated JSON files, and adding robust checkpointing so multi-day runs can resume after failures. The enhanced framework generates, submits, and records solutions for the full Kattis corpus of 3,589 problems across eight code-oriented models ranging from 6.7-9 billion parameters. The submission results show that the overall pass@1 accuracy is modest for the local models, with the best models performing at approximately half the acceptance rate of the proprietary models, Gemini 1.5 and ChatGPT-4. These findings expose a persistent gap between private, cost-controlled LLM deployments and state-of-the-art proprietary services, yet also highlight the rapid progress of open models and the practical benefits of an evaluation workflow that organizations can replicate on in-house hardware.

The effect of social buffering and gender on cortisol response in emerging adults

Presenters: Ashley Molchany, Kira Mcquiston, Britain Illgen

Presenters Departments: Psychology, Psychology, Psychology

Faculty Mentor: Susan Gans

Faculty Mentor Department: Psychology

The transition to college can be a challenging period for emerging adults (EA). Understanding their physiological stress response is essential during this time. The present study investigates acute salivary cortisol responses in emerging adults through a 60-minute period. Undergraduate participants ($n = 95$) were recruited through SONA Systems, completed questionnaires, provided saliva samples, and participated in building a house of cards, either as part of a triad or alone. Cortisol samples were collected in 20-minute increments, serving as a baseline, pre-task, post-task, and recovery measure. This investigation is a part of a larger study conducted by Dr. Gans and Dr. Kahen. The current study asks whether working alone versus in a triad affects cortisol output patterns and examines the role of gender. Specifically, the independent variables in this study are social condition (alone or triad) and gender (self-identified man or woman). Cortisol response will be examined using area under the curve with respect to ground (AUCG) to examine overall cortisol output. Area under the curve with respect to increase (AUCI) will be used to examine the role of the house of cards task in modulating cortisol response. Based on review of the literature, I predict that EA working in a triad will have lower overall cortisol response and reactivity, and that women will have higher cortisol levels overall, and men will have greater cortisol reactivity. Condition and gender will interact so that women will have larger differences in cortisol based on being alone versus in a triad.

"They just gave me the syllabus": A Mixed Methods Study of Music Therapy Educators' Pedagogical Practices

Presenter: Christina O'Brien

Presenter Department: Department of Education and Social Work

Faculty Mentor: Dr. Mimi Staulters

Faculty Mentor Department: Dept. of Education and Social Work

The 2022 AMTA workforce analysis reports 82% of board-certified professionals are white/European Caucasian (Iwamasa, 2025). However, the AMTA does not determine the origins of race or ethnicity among postsecondary music therapy faculty in the U.S., nor does it assess their potential impact on the expansion of multicultural curricula for preservice professionals. The purpose of this convergent mixed-methods dissertation is to examine the perceived significance of lived experiences and preferred pedagogies among music therapy faculty, their impact on preservice music therapy professionals, and their implications for cultural competence for board certification. Postsecondary music therapy faculty from the U.S. were sampled via snowball sampling. Quantitative data were collected via Qualtrics using Likert scales and demographic items to identify diversity among educators, multicultural practices, lived experiences in practice, and training. Qualitative data were collected through 1:1 semi-structured interviews to examine the perceived significance of pedagogical styles, lived experiences, and artifacts in delivering a multicultural curriculum toward cultural competence. A Cronbach's Alpha test was used to determine the internal validity of the survey measure. Kruskal-Wallis tests indicate no significant association between cultural competence and experiences or training in multiculturalism. Final data analysis suggests areas of convergence, including ongoing racial disparities in the profession, clinical lived experiences as a pedagogical tool, and the need for more pedagogical training and tools. Future implications for this research call for increased pathways for music therapists from diverse backgrounds and continued examination of influences on music therapy pedagogy.

Influence of Trash Substrate on Biofilm Growth and Metabolic Activity in Urban Streams

Presenter: Gianna Parrish

Presenter Department: Biology

Faculty Mentor: Megan Fork

Faculty Mentor Department: Biology



Trash accumulation in aquatic ecosystems is a growing environmental concern in part because of how chemical and physical effects of trash can harm primary producers such as biofilms. The food webs in aquatic ecosystems like streams are supported by biofilms, communities of algae and other microorganisms growing on substrates in the water. Biofilms play a crucial role in stream ecosystems by contributing to nutrient cycling and organic matter processing, yet their growth is dependent on access to nutrients and stable surfaces for attachment. Trash in urban streams can be a substrate for biofilms to grow when natural cobbles and wood are buried by sediment. This study investigated how biofilm growth and metabolism differ when stream biofilms colonize various types of trash. We found that biofilm growth and metabolic activity differed significantly among trash substrate types. Gross primary production (GPP) varied across substrates ($p = 0.0014$), with more textured materials, including avocado, fritted glass, and plastic bottles, supporting the highest GPP, while smooth plastic film supported the lowest. Community respiration also differed strongly by substrate ($p = 4.56 \times 10^{-6}$), with organic materials such as avocado and cardboard exhibiting higher oxygen consumption than plastic substrates. Biofilm biomass (AFDM) differed significantly among substrates ($p = 0.0001$), with avocado accumulating the greatest biomass and plastic film the least. Areal chlorophyll-a density showed weaker substrate effects ($p = 0.087$), though fritted glass supported higher chlorophyll-a than smoother plastics. Across substrates, GPP was positively related to AFDM, though this relationship was not statistically significant ($p = 0.1338$). Overall, textured and organic substrates supported greater biofilm biomass and metabolic activity than smooth plastics, indicating that surface properties and material composition strongly influence biofilm colonization and function in urban streams.

Detecting Deception Under Different Response Style Conditions

Presenter: Ivet Pritomanova

Presenter Department: Clinical Psychology

Faculty Mentor: Jodi McKibben

Faculty Mentor Department: Clinical Psychology

Malingering, the intentional exaggeration of symptoms for external gain, impedes valid assessment of psychological and physiological conditions in clinical, legal, and medical settings (APA, 2022, p. 836). Accurately differentiating falsified and genuine symptomatology is essential for just outcomes and prevention of significant distress and compounding trauma, which is best achieved by examining effort (Faust, 2023; Weiss & Van Dell, 2017). The Memorization of Digits Tool (MODT) is a forced-choice performance validity measure in which participants listen to digit sequences and select the correct answer from multiple options. The MODT was incorporated as a subcomponent of a larger study examining whether different response style instructions would impact performance on the MODT. Undergraduate students were recruited using convenience sampling (N=126) and divided into three groups: responding honestly (n=59), presenting a favorable impression (n=30), and feigning a significant mental disorder (n=37). Mann-Whitney U tests revealed past loss of consciousness and head injury did not significantly affect performance on the MODT across the three conditions. The results for these conditions were compared against a prior validity study (N=84) including simulated malingerers instructed to ‘fake bad’ (n=40) and a ‘best effort’ group (n=44). Kruskal-Wallis analyses revealed significant differences between the simulated malingerers and remaining groups ($p < 0.001$): simulated malingerers (Mdn=10), ‘best effort’ (Mdn=22.5), honest responders (Mdn=24), presenting a favorable impression (Mdn=25), and feigning significant mental disorder (Mdn=22.5). The MODT appears able to detect those who are specifically ‘faking bad’ versus those who are not doing so, without incorrectly identifying those feigning significant mental disorders as malingering.

The Relationship Between Employee Tenure and Work-Life Balance Across European Countries based on the European Working Conditions Survey of 2024

Presenter: Jordyn Rosenberger

Presenter Department: Management

Faculty Mentor: Johnna Capitano

Faculty Mentor Department: Management

This study examines the relationship between employee tenure and work-life balance across European countries using data from the European Working Conditions Survey. The analysis focuses on full-time, non-self-employed workers within EU27 countries and compares newcomers (one year or less of tenure) with mid-tenure employees (two to seven years). Work-life balance is implemented as a composite index of five behavioral indicators reflecting work-life interference: working during free time, being contacted outside working hours, feeling too tired to complete household tasks, finding your job prevents you from giving time to your family and changing family and friend plans due to work related reasons.

A Welch's t-test was conducted to assess differences between the two groups. It was found that subjective work life responses yielded poor results, while objective responses were the opposite. The test was re-run with a more concise work-life balance index including only objective responses: working during free time, being contacted outside working hours, and changing family and friend plans due to work related reasons. The results indicate a statistically significant difference in work-life balance, with mid-tenure employees reporting higher levels of work intrusion into their personal lives compared to newcomers. These findings suggest that while employees may gain stability with increased tenure, they may also experience greater demands that encroach on personal time.

The study contributes to understanding how work-life balance evolves over the early stages of employment and highlights the importance of organizational practices in managing work-related demands.

Classroom Chaos Relates to Cortisol for Children in Head Start Preschool

Presenters: Delaney Ryan, Emily Weaner, Agia Schell, Brianna Baron

Presenters Departments: PSYCHOLOGY, Psychology, Psychology, Psychology

Faculty Mentor: Eleanor Brown

Faculty Mentor Department: Psychology

Head Start preschool represents our nation's key intervention for children facing economic hardship. This access to high quality early childhood education matters especially because poverty-related stressors pose extra challenges for early learning and social-emotional development. Yet preschool itself can be stressful, and recent research has highlighted problematic high levels of the stress hormone cortisol for children in early childhood educational contexts as compared with at home, suggesting a critical need to consider how we might lower child stress levels in preschool. The present study focuses on the role of classroom chaos. Participants were 80 children ages 3 to 5 years who attended a Philadelphia Head Start preschool. Trained research assistants (RAs) applied a well validated measure (CHAOS; Matheny & Wachs, 1995) to rate classroom chaos (e.g., noise, hubbub, crowding, lack of structure and routine) in 5 different classrooms, on 3 different days. On the same days, children held cotton swabs in their mouths for approximately 1-minute to collect saliva that was later assayed for levels of the stress hormone cortisol. Core analyses relied on Hierarchical Linear Modeling (HLM) to facilitate within- and between-person comparisons with 3 observations for each child and 10-20 children within each classroom. Results suggested that higher levels of classroom chaos related to higher cortisol levels. Implications concern lowering preschool stress levels and maximizing the benefits of early childhood education for children facing economic hardship.

Enhancing Physician Assistant Student Confidence in Adverse Childhood Experiences (ACEs)

Assessment

Presenter: Laura Santanna Lonergan

Presenter Department: Physician Associate Education

Adverse Childhood Experiences (ACEs) are closely linked to chronic disease, mental illness, and high-risk behaviors, yet formal ACEs education remains uncommon in Physician Assistant (PA) programs. At West Chester University (WCU), students reported limited confidence in assessing patients for ACEs, identifying a clear curricular gap. This quality improvement project aimed to increase student confidence in ACEs assessment by 50% through an educational intervention combining lecture-based instruction and case-based learning (CBL). Fifty-one PA students (didactic $n = 24$; clinical $n = 27$) participated in IRB-approved sessions that included a standardized lecture followed by small-group CBL using adult and pediatric ACEs scenarios. Pre- and post-intervention surveys were given and paired responses were analyzed. The intervention was adapted from validated medical education models and aligned with PA program mission objectives emphasizing critical thinking, collaboration, and cultural competence. Curriculum gaps and faculty expertise limitations were identified through system analysis and addressed through structured delivery and feedback mechanisms. Results demonstrated statistically significant improvement across all domains ($p < 0.001$). Median confidence scores doubled for assessing and managing ACEs (Q3 from 3.0 to 6.0; Q5 from 3.0 to 5.0), surpassing the 50% aim. These findings confirm that structured ACEs education effectively enhances confidence and preparedness for trauma-informed care. Embedding ACEs education into PA curricula improves student confidence and reinforces program mission alignment. Future work should focus on longitudinal curriculum design, interprofessional collaboration, and preceptor training to sustain impact.

From Classroom to Career: NSSLHA's Role in Undergraduate Curriculum

Presenter: Mia Schultz

Presenter Department: Communication Sciences and Disorders

Faculty Mentor: Timothy Huang

Faculty Mentor Department: Communication Sciences and Disorders

Undergraduate coursework in communication sciences and disorders (CSD) provides students with a solid foundation in speech, language, and hearing sciences. Even with strong academic preparation, many BA-level students experience difficulty connecting what they learn in the classroom to real-world clinical practice, which may affect their confidence and readiness for graduate-level education. This poster examines how the National Student Speech-Language-Hearing Association (NSSLHA) helps bridge that gap. As the only national student organization recognized by the American Speech-Language-Hearing Association (ASHA), NSSLHA offers leadership, professional development, advocacy, and community outreach initiatives where students can build upon their traditional classroom instruction. This proposal explores the potential impact of developing mentorship and job shadowing programs within NSSLHA chapters to enhance experiential learning and deepen students' understanding and confidence in pursuing a graduate education in Speech Language Pathology or Audiology.

CRISPR/Cas9 Genetic Modification of *Mucor hiemalis* with GFP

Presenter: Ephrasinia Shimelis

Presenter Department: Biology

Faculty Mentor: Jessica Sowa

Faculty Mentor Department: Biology



Mucor hiemalis is a pathogenic filamentous fungus that causes Mucormycosis in humans. Currently we are unable to view this fungus in *C. elegans* without killing the worms, preventing us from studying its effects thoroughly. To solve this problem, we plan on utilizing CRISPR/Cas9 to genetically modify a *Mucor hiemalis* gene (*leuA*) with Green Fluorescent Protein (GFP). This will allow us to track the development of *Mucor hiemalis* in *C. elegans*, thus opening the door for *Mucor hiemalis* to become a simple model system to study how pathogenic fungi work. CRISPR/Cas9 is a genome engineering tool that can be used to introduce mutations into DNA: utilizes homology-directed repair (HDR) to fix the double strand break and incorporate new DNA. Because the CRISPR components must enter the cell to access genomic DNA, the fungal cell wall was removed to produce protoplasts. Once protoplast transformation was confirmed, the CRISPR construct was introduced, and cultures are now being monitored to verify whether Cas9 successfully cleaved the target locus. For HDR, a repair template containing the *EF1 α* promoter was cloned and amplified to drive GFP expression; GFP is being amplified separately. The promoter, GFP, and homology arms will be fused using overlapextension PCR to generate the final HDR template for genome insertion. The success of this genetic modification leads us one step closer to being able to understand the effects of *M. hiemalis* on *C. elegans*.

Improving Graduate Training in ADHD Assessment: An Experiment to Understand Students' Perceived Benefits in Three Instructional Conditions

Presenter: Emma Slade

Presenter Department: Psychology



Faculty Mentor: Dr. Stevie N. Grassetti
Faculty Mentor Department: Psychology

Attention Deficit Hyperactivity Disorder (ADHD) is a common psychological condition involving symptoms of inattention and impulsivity. Because future psychologists must be competent in assessing such conditions, it is crucial to identify which instructional strategies are preferred when learning to use tools to assess ADHD. This study explored graduate student preferences in ADHD assessment using the Test of Variables of Attention (TOVA), a validated tool.

10 doctoral psychology students from WCU were randomly assigned to one of three instructional conditions: 1) instructional paper, 2) narrated PowerPoint presentation, or 3) case study condition with pre-administered TOVA. After engaging with their condition, participants completed an online survey measuring perceived benefits and provided open-ended feedback.

Participants generally agreed that all conditions were beneficial. The highest ratings were given to organization and clarity; conversely, the lowest ratings were tied to confidence in explaining TOVA administration to others. Overall, the narrated PowerPoint was rated most beneficial, while the case study was rated least beneficial.

Results suggest graduate students are receptive to a variety of instructional modalities and eager for more assessment training. Limitations include a small sample size and lack of engagement measurement; larger samples and an objective measurement of engagement could strengthen future research designs.

Revisiting Sui Sin Far: Complicating and Contextualizing Her Representation and Advocacy

Presenter: Alexis Stakem

Presenter Department: English

Faculty Mentor: Carolyn Sorisio

Faculty Mentor Department: English



Edith Maude Eaton/Sui Sin Far is the first published writer of Asian descent in United States literary tradition. My research analyzes two of Eaton's short stories, "Its Wavering Image" (1912) and "A Chinese Feud" (1896), and the print cultures to which each belonged. Through an examination of primary sources, synthesis of secondary sources, textual analysis, and historicization, I contrast and contextualize both stories. "A Chinese Feud" was published in *Land of Sunshine* (1894-1935), a regional magazine. By contrasting this form against "Its Wavering Image," which was published in Eaton's short story collection, *Mrs. Spring Fragrance* (1912), my research demonstrates how print cultures impacted Eaton's representation of Chinese identity. With its emphasis on exoticism, *Land of Sunshine* influenced Eaton's choice to craft Chinese identity as the inescapable antagonist of "A Chinese Feud." However, in "Its Wavering Image," Eaton allows the protagonist to interpret her Chinese identity – it is not a force she is made subject to. Literary studies has focused on Eaton as a solely oppositional voice to "yellow peril literature," often disregarding her complicated representation of Chinese identity and the

influence of place of publication. Simplifying Eaton’s oeuvre in this manner deprives her of complexity within the field and presents an incomplete rendering of her advocacy.

Crime and Economic Activity

Presenter: William Stone

Presenter Department: Economics

Faculty Mentor: Simon Condliffe

Faculty Mentor Department: Economics



This paper examines the relationship between violent crime (2019) and 2023-2024 economic outcomes: economic diversity and unemployment rates at county-level. A near national cross-sectional sample $N = 2,964$ counties (171 counties omitted due to missing violent crime data) was used to test this relationship with OLS models, while controlling for demographics, educational attainment, poverty, and employment density. Results indicate a statistically and economically meaningful negative association between violent crime and economic diversity: a 100point increase in violent incidents per 100,000 residents is associated with a 0.1811point decline in the economic diversity index (0–100 scale), and a 1standarddeviation crime shock (≈ 246) implies roughly -0.445 points. Violent crime is positively associated with unemployment: a 100 point increase in crime rates corresponds to a 0.06698 percentage point rise in the unemployment rate (a 1SD increase $\approx +0.165$ percentage points). Findings are robust to log transformations and are heteroskedasticity robust. The results are relevant to local policymakers to justify crime prevention as part of economic development, urban planners to understand effects on neighborhood stability, financial institutions to assess lending risk, and researchers and community leaders to quantify broader costs of crime and target interventions.

“A Sense of Belonging is a Journey”: Assessing Student Well-Being Needs Through Found Poetry

Presenter:	Luwam	Teklegiorgis
Presenter	Department:	Public Health Sciences
Faculty	Mentor:	Rebecca Rich
Faculty Mentor	Department:	Public Health Sciences

Navigating college as a young adult leads to challenges and a need for connection. Universities have been called upon to develop policies and programs that aim to improve student well-being, belonging, and connection. To evaluate the needs of young adults at West Chester University, focus groups investigated students’ experiences of belonging, connection, and well-being. Undergraduate students were invited to participate in focus groups that used found poetry (FP) to open discussion about these topics. The use of FP allowed students a creative outlet to start the conversation of their experiences at the university thus far. FP offers a powerful method to deepen understanding of priority populations, assess needs, and foster meaningful connections in classroom settings to spark discussion, bridge diverse perspectives, and strengthen community. Six focus groups were held with 19 students who each created their own poem with the prompt of “well-being at WCU.” Pages of The Quad newspaper served as source text from which students could create their poems. Focus group discussions were recorded, and audio transcripts were analyzed for themes. The resulting themes included: connection and belonging, challenges and lessons learned, and vulnerability. In a time when student mental health is of the utmost concern, it is imperative to use new and innovative approaches to assess the well-being of students. A selection of the 19 poems created in this study will be presented to demonstrate the three overarching themes, as well as recommendations for university policies and programs.

Career Readiness Development at NIRSA Championship Series Tournaments

Presenter: Samantha Wary

Presenter Department: Education Policy, Planning, Administration, EDD

Faculty Mentor: Merry Staulters

Faculty Mentor Department: Education Policy, Planning, Administration, EDD

Understanding the students' perceptions of the career readiness skills they develop and in what ways they develop is critical in higher education. This allows campus recreation professionals to better understand and create opportunities for student development related to career readiness. A convergent mixed-methods design was employed to investigate students' perceptions of the career readiness development of student officials who have participated in the NIRSA Championship Series flag football tournaments. Informal and Incidental Learning Theory and Experiential Learning Theory guided the study. The National Association of Colleges and Employers (NACE) career competencies were used as a standardized tool to define career readiness. The hypothesis suggests that there is a relationship between the NIRSA Championship Series learning opportunities and the perceived development of specific competencies. The target population was 100 students who work as officials at a NIRSA Championship Series tournament, with a sample size of 39 quantitative participants and 8 interviewees. Quantitative results were reviewed to see which NACE competencies were perceived as supporting positive change. These results will be compared against the qualitative themes so a more in-depth understanding of the quantitative results can be achieved.

Media Perception on a Political Assassination

Presenter: Daniel Watkins

Presenter Department: Business and Public Management

Faculty Mentor: Jaeyong Choi

Faculty Mentor Department: Criminal Justice

There is no secret that the media can be divisive. Especially in the coverage of politics, different media outlets tend to use vocabulary and imagery to produce their narrative. As a result of media influence, the people of the United States have been left divided on several political issues including gun control, fracking, and the actions of Immigration and Customs Enforcement agents. This was no different in the recent assassination of far-right political activist, Charlie Kirk. Charlie Kirk was loved and hated by members of the public for his personal and political opinions. Although he preached his love for Christianity and traditional values, he sparked controversy for his views on climate change, reproductive rights and Diversity Equity and Inclusion. This raises the question; how would news outlets from the left and right cover the killing of Charlie Kirk? Using data from ten CNN YouTube videos and ten FOX News YouTube videos, we look at five categories. The categories include the presence of insults, a tribute, emotion, a mention of President Trump, and a mention of the left. The results show that FOX News was more likely to mention the left and show emotion about the sudden death of a prominent conservative figure than CNN. YouTube videos from CNN were more likely to cover the facts of the assassination of Charlie Kirk. However, the results do not show any significant statistical difference for the remaining categories. The recent slaying of a successful man with a family was the overarching theme throughout news broadcasts from the left and the right.

Simulation-Based Training to Improve Clinical Competence

Presenters: Tatum Williams, Adriana Grecco, Jenna Loquercio

Presenters Departments: Psychology, Psychology, Psychology

Faculty Mentor: Stevie Grasseti

Faculty Mentor Department: Psychology

Simulation-based training (SBT) utilizing standardized patients, also known as trained actors, is a teaching modality that enhances lecture-based classes with immersive scenarios designed to model critical aspects of real-life clinical practice (NIH, 2024). Previous research has shown that repeated exposure to SBT can increase perceived clinical competence in learners (Yu et al., 2021). However, current literature on SBT focuses on medical fields such as nursing, and little research exists regarding psychology students' use of SBT and how that may relate to changes in perceived competence. The present study focuses on two types of simulations: interdisciplinary and anti-racist with clinical psychology graduate students. Interdisciplinary simulations involve graduate students from clinical psychology, nurse practitioner, and social work programs, and focus on providing training on holistic care for patients. Anti-racist simulations involve graduate students in clinical psychology and focus on improving cultural competence through in-the-moment feedback and repeated practice (U.S. National Library of Medicine, 2022). The current study presents preliminary data from $n = 27$ psychology doctoral students who participated in SBT and reported on their perceived clinical competence before and after the simulation using an adapted version of the Perceived Competence in Clinical Psychology Scale (Glatz et al., 2022). Preliminary analyses from a paired samples-t-test suggest competence significantly increased from pre-simulation ($M = 114.81$) to post-simulation ($M = 116.85$) during the students' first experience in simulation $t(26) = 1.73, p = .048$. We discuss the implications of this finding and directions for future research.

LIGHTENING-TALK ABSTRACTS

Seeing Through Their Lenses: Employing Photovoice to Examine the Perspectives of Kindergarten Teachers in Implementing Purposeful Play for Children's Academic and Developmental Learning

Presenter: Subarna Basu

Presenter Department: Educational Leadership and Higher Education Administration

Faculty Mentor: Heather Schugar

Faculty Mentor Department: Educational Leadership and Higher Education Administration



The cognizance of learning through purposeful play is a crucial component of early childhood education as it supports the holistic development of children. The successful implementation of play-based learning is dependent on teachers' positionality, beliefs, and confidence in using these methods effectively. Extensive research focuses on teachers' insight, definitions, or concept of play-based learning (Cheng, 2012; Fesseha & Pyle, 2016; Pyle et al., 2018). However, there is limited understanding of teachers' perspectives regarding play-based learning in kindergarten classrooms and how to encourage teachers' motivations to integrate purposeful play into the curriculum. This study focused on kindergarten teachers' perspectives on the implementation of purposeful play for children's academic and developmental learning, the barriers and enhancers in this process, how teachers' own play history and confidence impact their teaching, and the need for relevant training and professional development. The study employed Paulo Freire's Critical Pedagogy theory and Constructivist theory to examine their lived experiences through critical self-reflection and sharing of best practices. This qualitative study employed photovoice methodology as participatory action research where kindergarten teachers collected photographs based on prompts, provided narratives, and used storytelling and reflection to discuss visual images in a structured focus group. The photographs and participant narratives represented five themes: interpreting play as a purposeful practice; pedagogical intentionality and instructional design; assessing learning through play; teacher agency, confidence, and professional growth; and navigating structural and administrative contexts. The data provided insight into teachers' play culture and readiness to implement child-centered and scaffolded purposeful play activities.

Clinical and Financial Impacts of Hospital Restructuring in Rural Pennsylvania

Presenter: Kira Brice

Presenter Department: Public Health

Faculty Mentor: Harry Holt

Faculty Mentor Department: Public Health

Rural hospital restructuring, consolidations, mergers, acquisitions, and closures pose challenges for local patients' abilities to access high-quality healthcare services and achieve optimal health outcomes. The financial pressures associated with rural hospital administration that might necessitate restructuring can potentially impact care delivery, and the transformation of a hospital's business model in an effort to survive can profoundly shape the local market in which it operates. Navigating these changes effectively is crucial to minimizing their negative consequences for patients.

In this study, we review rural hospitals' key challenges and how specific strategies and resources like operational redesign, global budgets, and novel payment structures impact hospitals from clinical and fiscal standpoints. We derive conclusions from available literature about the influence of the healthcare labor market, financial reimbursement avenues, and outcomes of various adaptive frameworks that a rural hospital may adopt in lieu of closure.

Using recent data, we evaluate how the restructuring of Pennsylvania rural hospitals has affected their operational and quality metrics related to staffing and organizational structure, clinical and financial performance, market influences, and long-term sustainability. Notably, we identify mixed-to-positive financial outcomes among hospitals that implemented global budgets and policy-driven models, and mixed evidence of improvement of clinical outcomes despite the barriers presented by hospital closures and service deserts. We contextualize our findings to synthesize comprehensive conclusions as to how various operational models may serve the needs of rural patients and support continuity of high-quality care during episodes of restructuring.

Critical Quantitative Methods in Education

Presenter: Benjamin Brumley

Presenter Department: Educational Foundations and Policy Studies

Critical quantitative methods in education (often referred to as QuantCrit and related approaches) are essential because they reveal how teaching and learning are shaped by social, cultural, and political forces, not just by individual effort or “objective” outcomes. Rather than treating numbers as neutral reflections of reality, critical quantitative inquiry argues that measurement, categorization, and statistical interpretation are always produced within histories of power. It asks not only what patterns exist in educational data, but why they exist, for whom they matter, and with what consequences. This perspective represents a paradigm shift in educational research. It challenges the assumption that quantitative methods are value-free by emphasizing that research decisions, what counts as achievement, how groups are defined, which variables are controlled, and what outcomes are prioritized, reflect researchers’ positionalities and political commitments. Traditional quantitative studies can unintentionally reproduce inequity when they frame differences as deficits or present findings as universal truths. In contrast, critical quantitative methods interrogate the assumptions embedded in instruments, data structures, and analytic models, exposing how policies, curricula, and institutional norms may reinforce inequities linked to race, class, gender, language, disability, and other intersecting identities. Critical quantitative inquiry includes approaches such as QuantCrit, TribalCrit, decolonizing quantitative research, DisCrit, and QueerCrit quantitative frameworks. While each centers distinct systems of oppression, they share commitments to equity, reflexivity, and ethical knowledge production. Ultimately, these methods are not only descriptive but transformative and support educational change by documenting community strengths, centering resistance and joy, and identifying barriers that schools and systems must dismantle.

Environmental Case Study: Outsourcing Human Resources

Presenter: Fiona Buffington

Presenter Department: Economics & English

Faculty Mentor: Johnna Capitano

Faculty Mentor Department: Business and Management



Environmental stewardship has become an increasingly prominent concept in business. As global concern over issues like climate change and pollution rises, firms are responding by adopting sustainable practices and reworking their management strategies. This prioritization of environmental health is shared across sectors and no longer confined to traditionally high-impact industries. Our project focuses on a negotiation scenario in a specific industry — human resource management and relocation services — to explore how a fictional firm might respond to growing demand for environmental action and how such a response could affect its relationships with other companies. We adapted a preexisting negotiation to develop a new case study involving a fictional solar engineering company and a fictional relocation service provider. To do so, we had to investigate how, if at all, a service provider like relocation could be environmentally conscientious. We discovered that not only are there many ways a relocation provider can be more sustainable, but that the types of things they facilitate, such as traditional air travel and trucking, account for a significant share of global greenhouse gas emissions. Although it may seem that implementing sustainable policies is unrealistic or unimportant in certain service-based industries, this study demonstrates that environmental stewardship is a shared responsibility. Firms that fail to adapt to this

shift risk not only the environmental consequences, but missed opportunities and weakened positions in contract negotiations. We have submitted this case study to Sage Business Cases and it is currently under review.

Factors that Impact K-6th Grade Teachers' Sense of Self-Efficacy: A Mixed Methods Study

Presenter: Becky Eckburg

Presenter Department: Educational Leadership and Higher Education Administration

Faculty Mentor: Mimi Staulters

Faculty Mentor Department: Educational Leadership and Higher Education Administration



Although there have been efforts to narrow the "achievement gap," research shows that the academic achievement levels of students in low socioeconomic school settings are likely to be significantly lower than the academic achievement levels of students in higher socioeconomic school settings (Rahman, Tang, & Chew, 2024; Babayiğit, Roulstone, & Wren, 2021). Studies also show that teachers have a significant impact on their students' growth, no matter what their academic setting may be (Petek & Pope, 2023) and that collective teacher self-efficacy is a significant factor in positive student achievement (Hattie, 2008). If targeted professional development could support teachers' self-efficacy, student achievement could be a positive result, no matter the school setting; however, more information is needed to determine the factors that impact teacher self-efficacy. This explanatory sequential mixed methods study explored the reported self-efficacy of 57 K-6 classroom teachers in various school settings in Pennsylvania and examined which factors contribute the most to heightened or diminished self-efficacy. Participants completed an online survey using Qualtrics and ten participants completed a follow up interview. Five of these participants also completed three journal prompts detailing experiences that impacted their self-efficacy. The quantitative data showed that although school setting and location did not affect self-efficacy levels, the relationship between parental involvement, administration, and smaller class sizes were statistically significant. The qualitative data suggests that teachers in all settings reported the positive impact their colleagues had on their self-efficacy, while also acknowledging the challenges of mental health challenges and difficult home lives.

Analyzing the evolution of eclipse-driven ionospheric TEC variations using radio imaging and GPS measurements

Presenter: Kate Frederick

Presenter Department: Earth and Space Sciences

Faculty Mentor: Gagne Marc

Faculty Mentor Department: Earth and Space Sciences



One of the most persistent challenges in geospace physics is accurately modeling the ionosphere, the ionized region of Earth's upper atmosphere (60 - 1000 km). Total Electron Content (TEC) measurements are incredibly useful for understanding ionospheric behavior and are estimated using dual-frequency GPS signals, sensitive to ionospheric plasma density changes and small-scale irregularities. However, these measurements are limited in spatial and temporal resolution as GPS satellites orbit and lose line-of-sight with ground receivers. However, radio telescopes provide a complementary tool with ionospheric-induced angular shifts in radio images being directly proportional to a TEC gradient (the change in plasma density over space). From the ability to observe numerous source shifts, radio images can be used to map TEC gradients at consistent spatial resolutions over a broader region than possible solely with GPS measurements. As a case study, we present a comparison between these techniques using data acquired during the October 2023 annular solar eclipse. We utilized GPS dual-frequency receiver data archived by MIT Haystack Observatory and low-frequency radio imagery (36 - 82 MHz) from the Owens Valley Radio Observatory Long Wavelength Array (OVRO-LWA) to extract TEC gradients and compared these results with TEC values derived from GPS data to examine ionospheric variations during eclipse onset, annularity, and recovery. This dual-instrument approach demonstrates the value of combining radio astronomy imaging and GPS measurements and holds the potential to create a richer and more complete ionospheric dataset.

The Impact of Literature: Fostering Empathy, Bridging Connections, and Advancing Society Through The Influence Of Mental Health Humanities

Presenter: Layla Handy

Presenter Department: n/a

Faculty Mentor: Kristin Kondrlik

Faculty Mentor Department: English



In constructing this project, this paper discusses the two separate literary works of the short story, "The Yellow Wallpaper," by Charlotte Perkins Gilman and the novel All the Bright Places by Jennifer Niven. Through a detailed analysis, this paper serves to convey the impact and influence of the two respective works in advancing the lay public's understanding and treatment of mental health and mental illness. To assist in conveying the influence of the two literary works, we will incorporate the interdisciplinary study of Mental Health Humanities, officially recognized as Health Humanities, conceived by Professor Paul Crawford of University of Nottingham. While the interdisciplinary study of Mental Health Humanities is most often utilized to educate people within the medical field, the study can similarly be applied to teach and educate lay people to formulate understanding and compassion of mental health and mental illness, which will be the primary focus of this project. To assist in conveying this information, we will additionally incorporate the expertise of Doctor Amjad Hussain of National College of Arts (NCA) and Doctor Rita Charon of Columbia University throughout the project. Consequently, in incorporating such research and expert voices, this paper strives to accomplish the following: Showcasing the

value literature holds in influencing society's understanding and treatment of mental health through the perspective of mental health humanities.

Postpartum Hemorrhage escape room; a pedagogical approach in undergraduate nursing education

Presenter: Christina D. Hays, Amir Golmohamadi

Presenter Department: Nursing, Nutrition

Background: Traditional didactic instruction alone may not fully engage nursing students or promote the critical thinking necessary for high-stakes clinical situations. Educational games used alongside lecture-based and clinical learning have demonstrated potential to increase student engagement and deepen comprehension of complex maternal health topics. **Objective:** This poster presentation describes the integration of an escape room activity into an undergraduate nursing course (NSG 311; Nursing Care of Women) to reinforce students' knowledge of postpartum hemorrhage (PPH) recognition and management following a high-risk obstetric lecture on sudden onset bleeding. **Methodology:** In this activity, students are divided into four teams at the conclusion of the PPH lecture. Using an evolving case study, teams collaboratively solve puzzles, riddles, and combinations requiring application of current evidence-based practices, including quantification of blood loss and PPH bundle interventions. Students must also recall relevant medications, dosages, and routes of administration within a thirty-minute timeframe. **Future directions:** This activity would promote students' capability in maintaining patient safety, their clinical judgment, and critical thinking in a low-stakes, collaborative environment. Future directions include formal assessment of student satisfaction and self-reported confidence, as well as expansion of the escape room format to additional topics such as preeclampsia. This strategy shows promise for integration across multiple courses throughout the nursing curriculum at WCU and beyond.

Social Dirt or Fertile Soil: A Phenomenological Study of Contingent Faculty

Presenter: Ann Hiloski-Fowler

Presenter Department: Educational Leadership & Higher Education Administration

Faculty Mentor: Orkideh Mohajeri

Faculty Mentor Department: Educational Leadership & Higher Education Administration

The experiences of contingent or adjunct faculty affect their professional identity development. Contingent faculty use has increased since the 1970s. By 2013, two-thirds of U.S. higher education faculty were contingent (Finkelstein et al., 2016). While institutions use contingent faculty to fulfill their educational missions (Haviland et al., 2017; Kezar & Sam, 2011; Kimmel & Fairchild, 2017), their status as academic laborers stigmatizes them in academia, developing what Levin and Shaker (2011) term a "hybrid identity" (p. 1479), as both professionals and laborers, professors and temporary employees. Historically, the professional status of the professoriate has been defined on the tenure track (Baldwin & Chronister, 2001; Gappa & Leslie, 1993; Kezar & Sam, 2011; Schuster & Finkelstein, 2006; Shaker, 2008). This phenomenological study explored the lived experiences of 15 contingent faculty through 30 interviews, two per participant. The first interview discussed participants' backgrounds and contingent experiences. The second interview explored what participants learned from their experiences and the meaning of being a professor and educator. The theoretical framework of social dirt (Raymond, 2024) was used to analyze these experiences. Findings indicated participants had negative and positive experiences, encapsulated under the concepts of social dirt and fertile soil. They experienced marginalization, instability, and isolation; however, some discovered flexibility, a love of teaching, and resilience. Future research

should study contingent faculty in greater depth by contract, discipline, and institution type. This study revealed the need for institutions to develop policies and practices supporting promotion and growth to nurture contingent faculty as educators and scholars.

Recognition and Reconstruction of a Tumor Boundary

Presenter: Collin Hood

Presenter Department: Mathematics

Faculty Mentor: Chuan Li

Faculty Mentor Department: Mathematics

Cancer continues to be one of the leading causes of death in the United States. The most well-known treatment options include surgery, chemotherapy, and radiation therapy, but they are each subjected to limitations and consequences for cancer patients. This raises the question as to whether there is a safer and more productive way of providing treatment with Hyperthermia therapy, which targets tumor cells by thermal sensitivity. Along with my colleague, Vincent Angelucci, we will provide mathematical models on how hyperthermia therapy works and how it affects a tumor cell. This will involve studying a binary-valued mask image that separates the tumor from whatever anatomical structure it is a part of. First, we will look at the original CT scan of the anatomical structure. Next, we enhance the region by highlighting the tumor boundary. Then, we use a binary mask image as an input for an extraction algorithm. Our goal is to recognize the coordinates and connect them to construct a parametric cubic spline for recreating the tumor boundary. This will involve figuring out how many coordinates we need along with the spacing and curvature between each pair.

Sports Psychology

Presenter: Anis Jaouad

Presenter Department: Health Sciences

Faculty Mentor: Dave Stearne

Faculty Mentor Department: Health Sciences



This project examines the relationship between mental health, mental skills training, and perceived athletic performance within competitive sport environments. While sport participation is often associated with resilience and psychological strength, emerging research highlights elevated rates of stress, anxiety, and burnout among athletes. The purpose of this project is to explore how psychological well-being and evidence-based mental skills practices contribute to both performance outcomes and sustainable athlete development. Using a quantitative research design, data were collected from athletes through validated self-report measures assessing mental health indicators, mental skills usage (e.g., goal setting, emotional regulation, attentional control), sleep quality, and perceived performance. Descriptive statistics and regression-based analyses were used to examine relationships among key variables while accounting for relevant demographic and sport-related factors. Results indicate that athletes who report consistent use of mental skills strategies demonstrate lower levels of psychological distress and higher perceived performance. Sleep quality emerged as a significant factor associated with improved emotional regulation and cognitive functioning. These findings suggest that integrated mental performance approaches can support both athletic success and psychological well-being. The implications of this work emphasize the importance of embedding mental health education and mental skills training into athlete development models. By reframing psychological well-being as a performance asset rather than a weakness, this

project contributes to ongoing efforts to reduce stigma and promote healthier, more sustainable sport environments.

Harm Reduction Policy Changes – Are They Helpful or Harmful?

Presenters: Hannah Mathur, Don Altemus, Ash Kohalmi

Presenters Departments: Social Work, Social Work, Social Work

Faculty Mentor: Brie Radis

Faculty Mentor Department: Social work

Harm reduction is a strategy for minimizing the negative consequences associated with substance use, without requiring the individual who is using substances to commit to entering a formal treatment program or to remain abstinent from substances. Using a harm reduction approach addresses the related health issues that can be impacted by substance use and approaches providing services to individuals using substances from a public health stance. Syringe exchange programs, supervised consumption sites, and access to naloxone have been shown to have an impact that improves overall public health outcomes by reducing the spread of diseases such as HIV and hepatitis C. Recently there have been changes in policy that impact the ability of grassroots organizations to provide harm reduction services. These changes include changes in available funding, and changes in local ordinances that determine what services organizations are permitted to provide and how those organizations are allowed to provide their services. Our research is designed to measure the effect of these changes on the overall public healthcare system; as well as the impact on the individuals in need of services. The purpose of conducting this research is to provide data that shows what benefits the needs of individuals who use substances and how provision of those needs benefits the greater public health care system

Examining Whether Benevolent Childhood Experiences Buffer the Impact of Life Stress on Neuroticism

Presenter: Wren Naessig

Presenter Department: Psychology

Faculty Mentor: Lauren Brumley

Faculty Mentor Department: Psychology

Background and Purpose: Previous research connected adverse childhood experiences (ACEs) and with worse college adjustment via neuroticism. However, little research has explored protective factors that may reduce the impact of childhood adversity on neuroticism. The current study examines whether positive childhood experiences (BCEs) moderate the impact of life difficulties (LDs) on neuroticism. **Methods:** Undergraduates (n = 194) completed an online survey including questionnaires assessing ACEs, LDs, BCEs, and personality. Neuroticism is a personality trait involving a tendency to experience negative emotions and was measured using the Big Five Inventory. We had two measures of childhood adversity: 1) the sum of types of ACEs and 2) broader stressors in childhood and adolescence (LDs). We conducted descriptive statistics, correlations, and regression in SPSS. **Outcomes/Implications:** We found that ACEs and LDs were positively and significantly correlated with neuroticism, and that BCEs were negatively and significantly correlated with ACEs, LDs, and neuroticism. A problem with multicollinearity between ACEs and BCEs precluded testing for moderation in that model. In a regression, we found that LDs were positively and significantly associated with neuroticism, and BCEs had a marginally significant ($p = .07$) negative association with neuroticism. The interaction of LDs and BCEs was not

significantly associated with neuroticism. This suggests that BCEs may have a marginal effect on reducing neuroticism, but do not counteract the impact of LDs on neuroticism. Future research could explore potential interventions to target neuroticism among college students exposed to childhood stress, or upstream interventions to reduce exposure to LDs in childhood.

Lichen Bioindication of a Lost Serpentine Barren Ecosystem

Presenter: Jessica Ritins

Presenter Department: Biology

Faculty Mentor: Greg Turner

Faculty Mentor Department: Biology



Within the Gordon Natural Area there lies a serpentine barren ecosystem of unknown dimensions. Serpentine soils are nutrient poor and characterized by high levels of chromium and magnesium. Trees are known to accumulate heavy metals from soil into their roots, stems, leaves, and bark; the latter of which is a substrate for the common foliose Green shield lichen, *Flavoparmelia caperata*. Green shield is an effective bioindicator because of its ability to accumulate heavy metals into thallus tissue and its prevalence in plant communities. A major goal of this study is to determine if there is a difference in the concentrations of Mg and Cr in Green shield inside and outside of the presumed serpentine barren area. Lichen samples will be taken along two intersecting transects traversing the suspected boundaries of the serpentine barren, which will be mapped using GIS. Comparisons between serpentine and non-serpentine sampled lichen thalli will be made using energy dispersive X-ray spectroscopy to measure elemental Cr and Mg concentrations, and dissecting microscopy to look for the presence of reproductive asci since reproductive potential may differ between host sources. Thallus dry mass will also be compared between host samples as it too may differ. It is hypothesized that samples with higher Mg and Cr concentrations will be found associated with trees growing within the presumed serpentine barren and lower in those outside of it. Asci are hypothesized to be more numerous on lichen from serpentine hosts, while dry mass is hypothesized to be lower on those.

Students with special needs and world language education: Debunking the misconceptions and myths

Presenter: Thomas Tedrow

Presenter Department: Department of Education and Social Work

Faculty Mentor: Orkideh Mohajeri

Faculty Mentor Department: EDD Curriculum and Instruction: Department of Education and Social Work

Acquiring and learning a second or third language is an elective choice given to many American students as they begin their high school careers. However, many students designated as special needs are frequently excluded from this choice as a matter of routine, and as the result of unfounded assumptions, misinformation, and myths. This presentation will use Cummins' Developmental Interdependence Coding Hypothesis (Cummins, 1979), and Sparks and Ganschow's Linguistic Coding Hypothesis (Sparks & Ganschow, 1991) as theoretical frameworks to debunk commonly held, albeit erroneously held, beliefs that hold students designated as special needs in a pattern of inability, thus denying them the rich and rewarding experience of learning a new language and its respective culture(s). Accordingly, this presentation will shed light on the current research in second language learning and second language acquisition that will allow world language educators, guidance counselors, parents, and school administrators to make better-informed decisions in creating a more inclusive world language learning

environment that focuses on ability, rather than disability, for students designated as special needs, and for children who learn differently. Keywords: world languages, special needs, second language learning, second language acquisition.

Taking Employment Seriously

Presenter: Larry Udell

Presenter Department: Philosophy

John Rawls's famous theory of justice did not consider unemployment as relevant to justice since the economics in the 1950's and 60's already addressed that issue. With the demise of that economic model, unemployment emerged again as a major social and political problem. I explain how to correct the omission and why it is important for America et. al. Today.

Analyzing the value of Humanistic Study in Higher Education Combating Humanities Discouragement

Presenter: Geoffrey Martin

Presenter Department: Philosophy

Faculty Mentor: Paul Harris

Faculty Mentor Department: Philosophy

Humanities majors have eternally faced judgement from society for their choice to pursue their art in higher education. In a culture that equates success with financial gain, humanities majors are often pressured to defend the worth of their studies against accusations of impracticality or economic futility. This project challenges that misconception by gathering empirical statistical evidence to illuminate both the tangible and intangible value of a humanities education.

With guidance from my faculty mentor, I will partner with the Career Development Center to collect and analyze data from the National Association of Colleges and Employers (NACE) related to postgraduate outcomes for humanities majors across departments at West Chester University—Arts and Design; Communications and Media; English; History; Languages and Cultures; Philosophy; Theatre and Dance; and Ethnic, Cultural Minority and Gender Studies. This includes metrics such as average starting salaries, career satisfaction, likelihood of continuing education, and post-graduation employment status. I will analyze the data from 2019-2024 to detect trends within the departments over time and compare it to a standard bachelor's degree outside of the humanities.

The final product will take the form of visually engaging posters, signs, and flyers designed to be displayed in the college's academic buildings, advising offices, and student hubs. My goal is to provide humanities students with evidence-based reassurance of the value of their education, while equipping them with persuasive tools to counter prevailing cultural narratives that undervalue the arts and humanities. By reframing the conversation around meaning, purpose, and success, this project seeks to restore confidence and pride in the pursuit of humanistic study.

When Children Recant: Psychological Mechanisms Behind Child Sexual Abuse Exonerations

Presenter: Kaitlyn McCarthy

Presenter Department: Psychology

Faculty Mentor: Quincy Miller

Faculty Mentor Department: Psychology

Child sexual abuse (CSA) cases present unique challenges for conviction and exoneration, given the frequent reliance on the child's account as the primary, if not the only, source of evidence. Children may recant allegations of sexual abuse at any stage of the legal process, including years or even decades after conviction. Such recantations can influence credibility assessments and case outcomes, with potential implications for exoneration. Yet the influence of post-conviction recantations on CSA exonerations remains unclear. Drawing on the largest sample of CSA exonerations to date ($N = 326$), we examined cases documented by the National Registry of Exonerations between 1989 and 2024 to assess the role of post-conviction alleged victim recantation in exoneration outcomes. The most common contributing factor to exoneration was alleged victim recantation following conviction (46%; $n = 151$). Recantation served as the sole or primary basis for exoneration in 68% of cases ($n = 103$). The time between conviction and recantation ranged from several months to 43 years ($Mdn = 4$). Time between conviction and recantation was positively associated with the importance of recantation in securing exoneration, $\rho = .22$, $p = .008$, 95% BCa CI [.05, .38]. These findings suggest that when additional evidence of innocence was present, recantations tended to occur sooner and played a less central role in securing exoneration. In contrast, when recantation served as the sole or primary evidence of innocence, recantations tended to occur later and were critical to the exoneration outcome. Together, this work informs post-conviction review practices and exoneration efforts in CSA cases.

The Leadership of Hospital Chaplains in the COVID-19 Pandemic

Presenter: Zachary Wooten

Presenter Department: Honors College

The COVID-19 pandemic impacted healthcare leadership, but much of the academic focus on leadership research has been on public health professionals and policymakers. Less attention has been given to the leadership roles of interfaith hospital chaplains. This study explores how interfaith hospital chaplains enacted leadership throughout the pandemic, focusing on their personal experiences, practices, and challenges. Utilizing Interpretative Phenomenological Analysis (IPA), the study involved in-depth interviews with ten interfaith chaplains from U.S. hospitals, all with at least six months of service during the pandemic. Chaplains demonstrated leadership through relationality, crisis management, and emotional support for patients, staff, and families. Their leadership was often under-recognized yet critical in navigating both the personal and collective trauma induced by the pandemic. The study underscores the evolving role of chaplains as essential healthcare leaders and highlights implications for future research and practice in interfaith chaplaincy leadership.

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