

Grad Con!



PRESENTED BY THE GRADUATE STUDENT SENATE

This convention will be an opportunity for Ohio University graduate students to explore new and exciting topics in leadership and graduate life while connecting with professionals and leaders in the field.

9am-7pm, Grover Center



ACADEMIA



RESEARCH



LEADERSHIP



GRAD LIFE



PROFESSIONAL
DEVELOPMENT

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The Office of Provost, Center for Teaching, Learning,
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gss@ohio.edu

KEYNOTE SPEAKER



Dr. Yegan Pillay, Ph.D., PCC-S

Dr. Pillay is a professor who teaches counselor education master's and doctoral level courses at Ohio University. Clinical and supervision experiences include the college and clinical mental health agency settings. Dr. Pillay holds a license as a Licensed Professional Clinical Counselor with supervisor endorsement in the state of Ohio and is licensed as a Counseling Psychologist in South Africa. Dr. Pillay has served the mental health profession for over three decades and his research interests include non-traditional approaches to counseling, psychological wellness, creativity in counseling, clinical supervision, racial identity issues and integrative holistic care. Dr. Pillay is active at the international, national, state and the community levels and has chaired the International Committee and Human Rights Committees of the American Counseling association. He is the past president of the Ohio Counseling Association; the Ohio Association of Multicultural Counseling and Development; and the Southeast Ohio Counseling Associations. Dr. Pillay was recently the principal site investigator for a multi-million, multi-state NIH funded study that examined the efficacy of CBT for the treatment of depression in individuals in rural Appalachia who are diagnosed with Type 2 Diabetes. He is currently a co-investigator of The Appalachian Ohio Opioid Workforce Expansion award (\$1.35 million) through the United States Department of Health and Human Services' Health Resources and Services Administration.



Graduate Student Senate 1st Annual Leadership and Research Conference

GradCon 2023 Program Schedule

Theme:

The Graduate Experience: Leadership & Advocacy

8.00 a.m.	Registration opens	Atrium
9.00 – 9.10 a.m.	Welcome by GSS President Kübra Civan	W115
9.10 – 9.50 a.m.	Keynote by Dr. Yegan Pillay	

GradLife Presentations	Concurrent Session A		
	10.00 – 10.50 a.m.		
	Presenter (s)	Title	Room #
	Emmanuel Agyei-Poku	A BobCat With A Purpose	W111
	Kelsey Kayton	Bullet Journaling: A Method for Productivity and Organization	W126
	Sheyla Finkelshteyn	Empathy workshop: How to communicate nonviolently with your advisor, students or administration	W131
Elizabeth Capps & Sierra Hightower	Using REDCap for Innovative Graduate Student Research	W119	
Leadership & Professional Presentation 1	Concurrent Session B		
	11.00 – 11.50 a.m.		
	Presenter (s)	Title	Room #
	M. Hashim Pashtun	Conflict Management & Leadership - From Failure to Success	W119
	Afsana Alam	Crafting Cover Letter: Introducing Yourself to the Employers	W131
	Ahmed Hamed	International students' relation with a city its people and heritage	W111
Anna-Kaye Rowe	Navigating the Job Search: Strategies for Success	W115	
Letitia Price	Women's History Month: Navigating the Leadership Labyrinth	W126	

Concurrent Session C		
<i>1.00 – 1.50 p.m.</i>		
Presenter (s)	Title	Room #
Danielle C. Biss	“On the Inside I'm Gossed Out and Wanting to Puke”: Exploring Professional Facework and Emotional Labor in Rural Emergency Medical Services	Atrium
Tauqir Zia	A Natural Mouse Model for Neisserial Transmission in the Upper Respiratory Tract	Atrium
Lawrence Ajayi	Bench-Scale Testing of Electrochemical Recovery of Phosphorus from Post-Digester Municipal Wastewater Driven By Magnesium Salt	Atrium
Michael Filipowski	Changes in Body Composition Markers over Preseason Camp in NCAA Division 1 Football Players	Atrium
Erica Granz	Differential Perceptions of Lower Income Groups Based on Label	Atrium
Yi He	Effect of Intermittent Wetting on Corrosion Inhibition in Oil/Water Systems	Atrium
Jennifer Whitfield and Alexis Voisard	Exploring Hybridity through Pop Culture, Multimodality, and Postcolonial Framework in FYC	Atrium
Kehinde Moyosola Ositimihin	Hydrology and Agricultural Sediment Pollution in the Bloody Run Swamp of Ohio	Atrium
Kushal Singla	Inhibitor adsorption characterized using Quartz Crystal Microbalance	Atrium
Ryan Steere	Investigating the global impact of DNA supercoiling on Staphylococcus aureus gene expression	Atrium
Jalen Warren	Periprosthetic Femur Fractures: Can We Do Better?	Atrium
Ehda Gharavi	Personality and pain intensity in rheumatoid arthritis patients: The mediating role of pain catastrophizing and cognitive emotion regulation strategies	Atrium
Keisuke Mikami	Personality and Situational Strength Interactions on Job Satisfaction: Trait Activation Perspective	Atrium
Sahithi Ayyagari	Role of Acetic Acid in the Formation of Protective Iron Carbonate Layers	Atrium
Keisuke Mikami	Testing Antecedents of Eating and Drinking Behaviors among International Employees	Atrium
Oussema Dhieb	Using VR Technology to Develop Conversational Skills among L2 Learners: Case Study of University Students Learning Arabic	Atrium

	Mazyar Bagherian	Preliminary Evidence on Moral Underpinnings of Rape-Victim Blaming in Cultures of Honor	Atrium	
Research and Academia Presentations	Concurrent Session D <i>2.00 – 3.40 p.m.</i>			
	Presenter (s)	Title	Time	Room #
	Ryan Steere	Investigating the global impact of DNA supercoiling on Staphylococcus aureus gene expression	2:10-2:20	W115
	Muhammed Ceesay	Climate Change Adaptation: the drivers of vulnerabilities among small holder rice farmers in The Gambia.	2:20-2:30	W115
	Ugwumadu Chinonso	Alchemy of Graphite: The Many Faces of Coal	2:30-2:40	W115
	Break			
	Qi Deng	The Target Matters: Associations of Prosocial Behavior with Providers' Well-being	3:00-3:10	W115
	Shauna Torrington	Secondary School Teachers' Perceptions about Reducing Oral Anxiety	3:10-3:20	W115
	Santana Summer Hess Adams	Deception of Juveniles in Interrogation Settings	3:20-3:30	W115
	Benjamin Price	Using Dual-Doppler Analyses to Investigate the Impacts of Terrain and Surface Roughness on the Three-Dimensional Wind Flow Field of Tornadoes	3:30-3:40	W115
Leadership & Professional Presentation 2	Concurrent Session E <i>4.00 – 4.50 p.m.</i>			
	Presenter (s)	Title	Room #	
	Courtney Silver-Peavey, Amy Strieter, Viktoria Marinova	It's Not Just You: GEO Fights for Fair Wages and Rights	W115	
	Calista Fowler, Jonah Heintzleman	Privilege Beads: An Activity to Introduce Privilege	W119	
Roshni Ashiq	Let's be a composed orator; a quick guide to public speaking pearls	W126		
Social Networking and Awards Ceremony/Event <i>5.00 – 7.00 p.m.</i>				

Convention Presentation Details

GRADLIFE

Presenter: Emmanuel Agyei-Poku

Title: A BobCat With A Purpose

The workshop which is loosely based on a book entitled "Finding Your Why", provides practical steps on how students can find and pursue their purpose. The workshop will explore topics such as what the word purpose means, why graduate students need to find their purpose, the steps students can take to help identify their purpose, as well as the next steps to take after students have identified their purpose. Including the practical aspect of the workshop, it is intended to last for about an hour. The workshop will help students connect their passion and motivation to their current programs of study and provide a clearer perspective of their next steps upon their graduation from school.

Presenter: Kelsey Kayton

Title: Bullet Journaling: A Method for Productivity and Organization

The purpose of this workshop is to introduce graduate students to the benefits and basic concepts of bullet journaling. Bullet journaling is a highly effective method for planning and record-keeping and can be especially beneficial for graduate students who are juggling multiple responsibilities and looking for ways to stay organized and on track. Participants will also learn about various creative ways to use a bullet journal, such as using it as a gratitude journal, tracking habits and routines, and documenting personal growth and development. By the end of the workshop, participants will have a clear understanding of the basics of bullet journaling and be able to start creating their own journals to help them stay organized, focused, and on track with their personal and professional goals.

Presenter: Sheyla Finkelshteyn

Title: Empathy workshop: How to communicate nonviolently with your advisor, students or administration

It is incredibly easy to get frustrated in academic scenarios. Whether there is a misunderstanding between you and your advisor, or maybe a heated discussion in the classroom, it is important to know how to communicate effectively and nonviolently. This workshop will teach graduate students a quick crash course on empathetic communication that can help them restructure their own thinking about the situation (de-escalate them) and help the other person (situation) and de-escalate that. Additionally, it will bring the graduate students and anyone attending closer to getting what they needed from the situation through communicating their needs in a nonviolent way and fulfilling the needs of the third party.

Presenters: Elizabeth Capps & Sierra Hightower

Title: Using REDCap for Innovative Graduate Student Research

Graduate students at Ohio University across colleges and campuses often engage in research. There are a variety of tools to support graduate student research at OHIO, yet engaging with these tools and utilizing these tools to accomplish innovative research projects can be challenging and stressful.

Research Electronic Data Capture (REDCap) is a secure web platform for capturing and storing data that is available to all graduate students at OHIO. This innovative and flexible platform offers a variety of tools and functions to support graduate students engaged in research. In addition, REDCap at OHIO offers tailored training workshops and consultation support for graduate student researchers aimed at helping them accomplish their research goals and reduce stress associated with complicated research designs and learning a new data collection and storage program. In this presentation, the REDCap Co-Administrators for Ohio University (graduate students Sierra Hightower and Elizabeth Capps) will describe what REDCap is, its advantages over other online data capture tools, and provide examples of innovative graduate student research conducted at Ohio University using REDCap. We will also provide opportunities for on-the-spot consultation with graduate student researchers to discuss how REDCap may be of use for their research endeavors.

Leadership and Professional Development

Presenter: M. Hashim Pashtun

Title: Conflict Management & Leadership - From Failure to Success

As a student leader, I have faced many challenges and hard times and managed to conquer most of it. The speakers always talk about the success of leaders but hardly mentions what leaders do in challenging times, what they do when they fail and how they stand back and resist. I faced such major challenges 3 times as the student leader. I) when I was the Commissioner at the Student Senate and our student body protested against him that led to his resignation and the disgrace of the body. II) When I was accused and sent to Conduct & Discipline when I was the Vice President of Graduate Student Senate and iii) when I led the International Student Union (2015-17) when its President was impeached and the executive body was officially accused of the corruption, SAC was limiting its fundings to ISU and member organizations were leaving the Union as well.

In all these hard times, I was blessed with a good team, some good mentors and ofcourse some lessons from the past, rules of leadership, principles of conflict management and some critical thinking helped me pass these hard tests and manage to come out successfully. As a result, I am the only international student as Senator Emeritus, only Engineering student to lead ISU, the first Chief Justice of Student Senate and the only Bobcat to have won Student Leader of The Year, three years in a row. This session will be not only about my story, but explaining the principles, go-to when there is any conflict, any failure and what are leaders supposed to do in such situations. I will also share some stories of other historical figures during this session as well. Furthermore, with almost 10 years of professional experience, I will share some first-hand examples of conflict management as well. The graduate students should be able to grasp the knowledge of basic leadership principles, how they are implemented case based and how conflict management works, these rules and lessons can be implemented as student leader, or any other leadership position in the professional world.

Presenter: Afsana Alam

Title: Crafting Cover Letter: Introducing Yourself to the Employers

Working as a graduate writing tutor, I found out that how it is necessary for graduate students to perform good in academic writings, it is also important in terms of nonacademic writings such as Cover letter for jobs, Statement of purpose/ Statement of Interest for fellowships, scholarships, or grants application. I think most of the students struggle in this area to craft a statement that reflects both their personal and professional achievements and aspirations. Through my workshop, I would like to share some tips with the students about how to impress hiring/ award committee members, how to Show personality and

demonstrate suitability for the role and to Showcase passion for the role. It's very important to write a good cover letter or statement of purpose for graduate students because it helps an employer identify who the applicants are and what they can offer. While the resume lists applicants' qualifications, the cover letter or Statement of Purpose allows them to talk in-depth about what makes them unique as an applicant and why they are passionate about the role they're applying for or especially interested in. Those are the documents in the application package which makes applicants stand out from the crowd. As such, those can hugely determine applicants' acceptance.

Presenter: Ahmed Hamed

Title: International students' relation with a city its people and heritage

I want to talk about my experience in documenting the daily life of the city of Athens, Ohio through my Instagram page Athens lens
https://www.instagram.com/athens_lens/

Presenter: Anna-Kaye Rowe

Title: Navigating the Job Search: Strategies for Success

The job search and planning for life after graduation can be a very daunting and frustrating experience for all students. In this session, participants will explore strategies for career exploration, and self-assessment, and learn best practices for developing a cohesive and professional resume, CV, and cover letter. The session will also provide tips on networking and building effective relationships to enhance the job search experience. The session will be tailored to highlight many of the core skills and experiences honed by graduate students across disciplines and highlight current trends relevant to diverse student populations including international students.

Presenters: Calista Fowler, Jonah Heintzleman

Title: Privilege Beads: An Activity to Introduce Privilege

In this program, participants will engage with an activity adapted through the Campus Involvement Center designed to introduce privilege to students. This activity aims to initiate a discussion around privilege but begin with the concept individually.

Participants will read statements which describe situations that they may have encountered in their lives and add beads to their cups when statements apply to them.

This activity is designed to encourage reflection on an individual level as well as move participants into a "brave space" where leadership and learning thrive.

After the activity, we will discuss concepts related to privilege, as well as how to facilitate and organize this event for areas that might benefit from this program.

Presenters: Courtney Silver-Peavey, Amy Strieter, Viktoria Marinova

Title: It's Not Just You: GEO Fights for Fair Wages and Rights

Graduate students are an underrepresented and exploited population within the university system; international graduate students are particularly exploited. We are accepted (hired) by universities under the pretense that we will be paid sufficiently to survive in southeastern Ohio. We then begin our graduate education careers and quickly discover that we are expected to produce large quantities of cutting-edge research while our mental and physical health suffers without sufficient resources to stay healthy—we are strategically overworked and underpaid. Some university administrators (including at OU) would dismiss this objection by saying, "this is how it's always been done," but in fact, grad student exploitation has gotten worse over time. The Graduate Employee Organization (GEO) refuses to accept the status quo and aims to bring these unacceptable conditions to light. GEO is currently fighting to increase the rights of our fellow graduate students. In this session, we will discuss the battles GEO is currently fighting, the major accomplishments we have won, and our future goals. GEO has gained power and momentum at Ohio University! To continue this uphill battle we need your voice, your support, and your ideas. We hope you will join us in the conversation with OU's administration. We all deserve to be heard and to be paid a fair wage.

Presenter: Roshni Ashiq

Title: Let's be a composed orator; a quick guide to public speaking pearls

Public speaking traditionally means speaking face-to-face in front of a live audience. However, with time and more technological advances, public speaking has been redefined as the practice of speaking either virtually, in person, or pre-recorded settings. It does not only include the verbal aspect but pays close attention to the nonverbal aspect of communication. As an instructor for the "Fundamentals of Public Speaking" course, I have encountered students who suffer from serious communication apprehension, have stage fright, and are uncomfortable when facing smaller or larger audiences. As much as public speaking is essential, it is a challenge for many, if not all, students. Being a graduate student is demanding. It requires constant conference presentations, presenting the research work at various university, state, and national level platforms, and interacting with experts in the field for networking and socializing. Not only during academic years, but public speaking also helps during the job-seeking process. Regardless of any special occasion, public speaking is an art of daily life required for interacting with friends, during persuasion, or simply communicating our thoughts to our social circles.

My workshop will be based on both theoretical tips and practical applications. The first half will cover selecting topics for public speaking, research approach or finding content, how to cite references in an oral presentation, including stories, parts of speech (introduction, body, and conclusion), audiences, and tips on overcoming apprehension. Whereas the second half will allow participants to practice both impromptu and extemporaneous speech followed by the speaker's feedback. This will not only help participants in gaining confidence in a safe space but will also give them the basic idea of effective public speaking, which will help them in their personal, academic, and professional lives.

Presenter: Letitia Price

Title: Women's History Month: Navigating the Leadership Labyrinth

With the D&I theme of March being that of Women's History Month, it provides communities an opportunity to reflect on the historical leadership journeys of women and marginalized genders and how they compare to the contemporary climate of women navigating leadership and professional trajectories. Reflecting on Eagly & Carli's (2007) leadership labyrinth and Kimberle Crenshaw's "urgency of intersectionality" piece, this workshop will explore some its themes and how they can shape conversations and provide support for student's wishing to explore and become more involved in leadership across higher education.

POSTERS

Presenter: Danielle C. Biss

Title: On the Inside I'm Grossed Out and Wanting to Puke": Exploring Professional Facework and Emotional Labor in Rural Emergency Medical Services
Guided by organizational ethnography, this study applies Goffman's (1955) face theory to understand the role of professionalism in EMS when supporting underserved rural communities. Findings reveal that EMS providers manage face threats, preventive facework strategies, and face corrective strategies.

Presenter: Erica Granz

Title: Differential Perceptions of Lower Income Groups Based on Label

Numerous terms for low SES people refer to the same group, but result in differing perceptions. Two studies found that “Broke” people were dehumanized more, both subtly and blatantly, than “In Need” people despite participants rating them as the same SES level.

Presenter: Lawrence Ajayi

Title: Bench-Scale Testing of Electrochemical Recovery of Phosphorus from Post-Digester Municipal Wastewater Driven By Magnesium Salt

Phosphorus is a key macronutrient for plant growth and other industrial processes. It is found abundant in wastewater and can potentially be recovered and reuse via electrochemical process.

Presenter: Michael Filipowski

Title: Changes in Body Composition Markers over Preseason Camp in NCAA Division 1 Football Players

Using body composition measurements, positive changes in Phase Angle (PhA) were found in 18 college football players. PhA increased over 3 weeks with a strong correlation to hydration. These results indicate that the preseason camp period in college football is not detrimental to players’ cellular health.

Presenter: Kehinde Moyosola Ositimehin

Title: Hydrology and Agricultural Sediment Pollution in the Bloody Run Swamp of Ohio

Intensive agricultural practices on farmlands leading to the discharge of sediments and nutrients (nitrogen and phosphorus) create several environmental problems which account for almost half of all U.S. water pollution challenges. My research proposes a solution to agricultural pollution.

Presenter: Yi He

Title: Effect of Intermittent Wetting on Corrosion Inhibition in Oil/Water Systems

The project aims at furthering the understanding of how corrosion inhibitors act, in order to better qualify them, use them, and extend their limits of use.

Presenters: Jennifer Whitfield and Alexis Voisard

Title: Exploring Hybridity through Pop Culture, Multimodality, and Postcolonial Framework in FYC

Transforming first-year writing curriculum through a hybrid application of pop culture texts, including video games and comic books, and postcolonial theory.

Presenter: Tauqir Zia

Title: A Natural Mouse Model for Neisserial Transmission in the Upper Respiratory Tract

Gonorrhoea is considered the second most prevalent sexually transmitted bacterial infection worldwide and is caused by *Neisseria gonorrhoeae* (Ngo). Ngo frequently colonizes asymptotically the mucosal surfaces of the genital tract, rectum, and pharynx. However, mechanisms of gonococcal transmission between hosts are poorly understood. Studies of in vivo transmission of Ngo are challenging due to a lack of natural animal models. We have developed the first murine model of *Neisseria* transmission using the model organism *Neisseria musculi*. We aim to use this model to identify and study neisserial persistence and transmission factors. In vivo models are needed to develop approaches to combat reservoirs of *Neisseria* that contribute to persistence and

dissemination of disease and antimicrobial resistance. *N. musculi* is a commensal of wild-caught house mice that encodes many orthologs of *Ngo* virulence factors. For this study we evaluated the ability of *N. musculi* to transmit between colonized and uninoculated laboratory mice. Transmission was detected in two inbred mouse strains, A/J and C57BL/6, following single oral inoculations. Mice were inoculated and three weeks later co-housed with uninoculated mice. Transmission to uninoculated mice was detected as early as one week after co-housing. Transmission kinetics were found to differ depending upon which colonized mouse strain was co-housed with uninoculated mice. We have established a rodent model capable of investigating factors that influence neisserial transmission. Mutation of host and bacterial genes will allow future investigation of molecular determinants that influence transmission between hosts.

Presenter: Kushal Singla

Title: Inhibitor adsorption characterized using Quartz Crystal Microbalance

Corrosion is a material degradation process which is mostly related to metals after exposure to certain environmental conditions. In my research, I use QCM technique to characterize the affected surface and develop a mechanistic understanding of corrosion and corrosion inhibition process.

Presenter: Ryan Steere

Title: Investigating the global impact of DNA supercoiling on Staphylococcus aureus gene expression

The shape of DNA in bacteria impacts their ability to cause disease in humans. When artificially relaxing DNA in a deadly bacterium, we found that certain disease-causing traits were turned up or down. The experiments herein investigate this phenomenon and replicate this effect in natural settings.

Presenter: Jalen Warren

Title: Periprosthetic Femur Fractures: Can We Do Better?

The number of knee arthroplasties and hip arthroplasties are expected to continue to rise with the aging population. A known complication is periprosthetic and interprosthetic femur fractures. Our aim is to investigate technique variations which may lead to the lowest complication rates in patients with these fractures.

Presenter: Ehda Gharavi

Title: Personality and pain intensity in rheumatoid arthritis patients: The mediating role of pain catastrophizing and cognitive emotion regulation strategies

The field of health psychology focuses on the interactions between biology, psychology, behavior, and social variables as they relate to health and illness.

Presenter: Keisuke Mikami

Title: Personality and Situational Strength Interactions on Job Satisfaction: Trait Activation Perspective

Antecedents of job satisfaction focus on the main effects of person and situational characteristics, which likely provides a myopic view of the interplay. The present study aimed to elucidate person-situation interactions on job satisfaction by focusing on personality and situational strength. Using the survey data obtained from Amazon's Mechanical Turk workers, we examined both the main effects of situational strength and personality-situational strength interactions on job satisfaction. Hypotheses regarding interactions were proposed based on trait activation theory (TAT). Results showed significant main effects of situational strength facets on job satisfaction. Furthermore, moderated multiple regression showed that positive relationships between conscientiousness and job satisfaction as well as agreeableness and job satisfaction were moderated by situational strength facets as predicted by TAT.

Presenter: Mazyar Bagherian

Title: Preliminary Evidence on Moral Underpinnings of Rape-Victim Blaming in Cultures of Honor

In this paper, we provide preliminary evidence for moral underpinnings of rape victim-blaming in honored cultures. We used moral foundation theory as our basis to study its interplay with individuals' Acceptance of Modern Myths About Sexual Aggression (AMMSA) and their rape victim-blaming. We found that compared to less honored cultures, AMMSA, Sanctity, and Authority foundations have a more pronounced effect on rape victim-blaming in highly honored cultures.

Presenter: Sahithi Ayyagari

Title: Role of Acetic Acid in the Formation of Protective Iron Carbonate Layers

With the addition of acetic acid, water chemistry is observed to change by inducing a change in pH and ionic strength, and formation of soluble complexes. This may lead to an instability in the FeCO_3 layers. While the effect of pH and ionic strength received adequate attention, the effect of complexation has not.

In the present study, modified thermodynamic calculations to compensate for complexation have been used to calculate the solubility product, K_{sp} and saturation value for iron carbonate, $S(\text{FeCO}_3)$. It was observed that regardless of the presence of acetic acid, protective corrosion product layers were formed without a relevant significant delay.

Presenter: Keisuke Mikami

Title: Testing Antecedents of Eating and Drinking Behaviors among International Employees

Eating and drinking issues among international employees are under-explored despite its importance, and little is known for the antecedents. The present study aimed to identify possible predictors of expatriates' eating and alcohol consumption using three different perspectives: stress, freedom, and food accessibility. Results showed support for effects of stress on unhealthy eating and food item accessibility on healthy eating. Unexpectedly, adjustment had a positive impact on unhealthy eating and negative impact on healthy eating.

Presenter: Oussema Dhieb

Title: Using VR Technology to Develop Conversational Skills among L2 Learners: Case Study of University Students Learning Arabic

This research investigates the impact of using VR in learning a second language (Arabic). Participants do language practice modules on a platform (ImmerseMe) with VR headsets or normal computers. Their performances are compared to reveal whether VR users developed better conversational skills.

RESEARCH AND ACADEMIA

Presenter: Ugwumadu Chinonso

Title: Alchemy of Graphite: The Many Faces of Coal

Advancements in technology are dependent on lithium-ion batteries, which are housed in graphite. Unmet industrial demand for graphite and environmental problems from graphite mining has become critical issues. This research focuses on graphite production from carbonaceous materials like coal.

Presenter: Muhammed Ceesay

Title: Climate Change Adaptation: the drivers of vulnerabilities among small holder rice farmers in The Gambia.

The main aim of my research is to examine the non-climatic factors driving vulnerabilities of local rice growing communities in The Gambia to salt intrusion. Salt intrusion is among the slow onset impacts of climate change causing devastation loss to small holder farmers around the world especially those in the developing world. It destroys crops especially rice grown in coastal regions/ swamps by attacking their survival opportunities; thus, reduction in production levels. My study, focused in The Gambia, seeks to examine and answer the questions “why are small holder rice farmers in The Gambia vulnerable to the impacts of salt intrusion” and “to what extent does their vulnerability limit their adaptation capacities and shape the form adaptation measures they undertake”? The study is keen on the non-climate factors behind such vulnerabilities. This study is significant because rice is a staple crop in The Gambia – a country that is highly dependent importation of what it mostly consumes (rice) – and to understand factors limiting its production is crucial as it will help policymakers both at government and non-government policy and decision makers to better align their adaptation policies and programs to address the impacts of climate change on vulnerable populations actively involved in the business of producing the most staple crop in county. Furthermore, the study will be a major contribution to the knowledge on climate change adaptation especially in the developing world.

Presenters: Santana Summer & Hess Adams

Title: Deception of Juveniles in Interrogation Settings

It is currently legal in the state of Ohio to deceive minors when interrogating them for a potential offence. In partnership with the Ohio Innocence Project, this research seeks to understand the sociological framework that points to this law needing revision.

Presenter: Ryan Steere

Title: Investigating the global impact of DNA supercoiling on Staphylococcus aureus gene expression

The shape of DNA in bacteria impacts their ability to cause disease in humans. When artificially relaxing DNA in a deadly bacterium, we found that certain disease-causing traits were turned up or down. The experiments herein investigate this phenomenon and technological applications of the study.

Presenter: Benjamin Price

Title: Using Dual-Doppler Analyses to Investigate the Impacts of Terrain and Surface Roughness on the Three-Dimensional Wind Flow Field of Tornadoes

This study utilizes Doppler radar data to create dual-Doppler analyses of tornadoes that crossed variations in topography and land cover. Vertical velocity, divergence, and vorticity are calculated to monitor changes in the tornadoes' 3-D wind field structure as they traverse gradients in terrain.

Presenter: Shauna Torrington

Title: Secondary School Teachers' Perceptions about Reducing Oral Anxiety

Oral anxiety (OA) and its impact in the context of a second language learning (SLL) environment cannot be overemphasized. Understanding the experiences of teachers from diverse cultural and geographic contexts can help in shedding light on this especially important phenomenon. This research will add to the scholarship on SLL through a qualitative comparative case study of secondary school teachers in Guyana and the US.

Presenter: Qi Deng

Title: The Target Matters: Associations of Prosocial Behavior with Providers' Well-being

Prosocial behavior is a social behavior that benefits other people or society as a whole, such as helping, sharing, donating, co-operating, and volunteering. The research aimed to examine the effect of the relationship between the helper and target (close vs. strangers) on the helper's psychosocial well-being when performing prosocial behavior. To test this, a cross-sectional survey was administered to a sample of Japanese university students (N = 446; mean age = 20.94, SD = 1.77; female n = 227, male n = 219). The survey included various measures of well-being, including positive and negative affect, need satisfaction, emotion regulation, social connectedness, and health. The results showed that the relationship between the helper and target moderated the associations between prosocial behavior and psychosocial well-being. Specifically, the associations between prosocial behavior and positive psychological variables were stronger when the behavior was directed at close others rather than strangers. These findings provide important insights into the psychosocial benefits of prosocial behavior and extend past research by demonstrating that the benefits depend on the relationship between the helper and target.

In conclusion, this research highlights the importance of considering the relationship between the helper and target when examining the psychosocial benefits of prosocial behavior. The results suggest that particularly a low level of prosocial behavior towards close others may be detrimental to a helper's subjective well-being. Future research should continue to explore this relationship and its impact on well-being in different cultural and demographic contexts. Overall, these findings have important implications for individuals, communities, and organizations looking to promote well-being through prosocial behavior.



Gratitude to the GradCon Committee Members:

Kübra Civan

Amrit Bahadur Thapa

Abigail Otchill

Courtney Silver-Peavey

Kelsey Kayton

Faustina Mensah

Nisha Singh

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