2026 Graduate Student Research Fair
Preliminary Program

May 6, 2026, 4:00-6:00 PM, Caudell Hall

Sponsored by the Buffalo State Graduate Student Association

Poster Presentations
4:45–6:00, Caudell Lobby

Advocacy, Autonomy and Accessibility: An Art Teacher's Co-Curation of Space with Students with Disabilities

Melanie Zakraysek, Art Education
Faculty Advisor: Alexandra Allen, Art Education

Art rooms are often "make-shift" spaces, centering around factors like supplies, equipment, or the teacher's spatial needs, ignoring the sensory and emotional needs of students with disabilities. This qualitative research study explores how co-designing an art classroom with my students can create a sense of belonging and autonomy, especially for students with disabilities. By examining inclusive frameworks such as critical disabilities theory, place as pedagogy and the asset/affirmative model of disabilities, this research project empowers students through the methodology of Youth Participatory Action Research (YPAR) where students act as co-designers and co-researchers; re-shaping their own learning environments rather than remaining passive in the art classroom. Through reflective interviews, inspiration boards, and group activities, we redefine decades-old terms and outdated labels. We challenge stereotypical narratives by listening to the voices and expertise of the students themselves, where our values are re-prioritized, and subtle room changes shift the energy and become hugely impactful. My data collection, mainly written observations, recorded audio, and candid photos, unveil powerful insights into how we worked together using everyone's strengths to reach a common goal. In summary, this work seeks to transform the art room into a creative, collaborative, and "artistic sanctuary" where physical and social needs are met to support diverse cognitive and physical abilities.

Motivation and Engagement in Problem and Issues-Based Learning

Tyler Hendricks, Art Education
Faculty Advisor: Alexandra Allen, Art Education

This display will discover the current study being conducted to determine the effects problem based learning (PBL) and issues-based learning (IBL)have on student motivation and engagement. This display will discuss the background information informing this study, as well as its methods and the framework guiding the study itself.

An Autoethnography on Teaching and Studying with Learning Disabilities

Taylor MacCallum, Art Education
Faculty Advisor: Alexandra Allen, Art Education

This autoethnographic study explores my experience as a student with Non-Verbal Learning Disability in primary, secondary, and post-secondary education, with a particular emphasis on ableism. This study examines my experiences through the lens of critical disability theory and arts-based research. Through this research, I will explore the complex relationships between ableism and education, as disability is a complex inter-relationship between impairment, an individual's response to that impairment, and the physical, institutional, and attitudinal environment. The findings of this study will inform how my experience with ableism has affected my teaching practices, how I can utilize that information to create a more accessible curriculum in my classroom, and how arts-based research can be used as a form of disability activism.

Laryngeal Proprioception and Loudness of Speech

Brynlee Worden Kean, Speech Language Pathology; Emily Cirincione Prawel, Speech Language Pathology
Faculty Advisor: Anita Senthinathan, Speech Language Pathology

The mechanisms that govern the production and perception of speech require complex interactions between the muscles and structures of the head and neck, and neurobiological interactions with the brain. There is little research that helps explain how the proprioception of the larynx impacts the production and self-perception of voice parameters (Hernández-Morato, 2023), particularly the modulation of speech intensity. The Laryngeal Proprioception and Loudness of Speech project will examine the influence of unmasked and masked laryngeal proprioception on the perception of self-produced speech and speech intensity modulation. To do so, each participant will complete a series of predetermined speech tasks (e.g., counting, sustaining an ‘ah’ sound, reading sentences aloud, conversational tasks) twice: first, without intervention (i.e., unmasked), then, with intervention (i.e., masked). During the second round of speech tasks, intervention will involve fixing a vibratory device, called the Lelo® Siri, onto each participant’s larynx- superficial to the thyroid lamina- via a felt strap and Velcro, to mask proprioception. Following every task, each participant will rate the loudness of their speech. Ultimately, this study aims to provide pilot data on neurologically healthy speakers, allowing subsequent research to assess these

proprioceptive influences on the speech of individuals diagnosed with Parkinson's Disease (PD). Preliminary data will be presented that will help determine the connection between laryngeal proprioception and speech modulation.

Speech Perception and Evoked Potentials in Individuals with Parkinson's Disease

Shae-Lynn Elizabeth Antonides, Speech-Language Pathology; Robin Clifford, Speech-Language Pathology
Faculty Advisor: Anita Senthinathan, Speech-Language Pathology; Kathleen McNerney, Speech-Language Pathology

Parkinson's disease (PD) is a progressive neurodegenerative disorder that affects both motor and non-motor systems, often resulting in speech impairments such as hypokinetic dysarthria and reduced vocal intensity (hypophonia) (Patel et al., 2014; Lowit et al., 2018). Research has shown that impaired self-perception of vocal loudness is a contributing factor to hypophonia in individuals with PD, though the underlying neurophysiological processes remain unclear (Kwan & Whitehill, 2011). The present study aims to investigate neurophysiological differences in auditory processing of loudness between recordings of the participant's own voice and those of another speaker using electrophysiological measures. Findings from this study may provide insights into the neural mechanisms underlying speech deficits in PD and support the development of more effective interventions to improve communication and quality of life. This study uses electroencephalography (EEG) to evaluate P300 responses to self-produced and standard speech sounds presented at varying loudness levels in individuals with PD and neurologically healthy controls. This is done by having participants produce short syllable utterances (e.g., "ba"), then listen to recordings of both their own productions and standard productions while wearing EEG electrodes. Stimuli are presented at five volume levels ranging from quiet to loud, with participants completing a volume-based oddball task by counting louder target sounds among standard stimuli. EEG responses, including P300 amplitude and latency, are recorded for each stimulus level to assess attention and auditory processing. The data collected from participants with PD and healthy controls will be compared to determine pathological differences relating to PD. Preliminary data will be presented.

Student Perceptions of a Cell Phone Restriction Policy: A Study on Social-Emotional Learning

Benjamin Spiesz, Childhood Education (undergraduate)

Faculty Advisor: Chris Shively, Elementary Education, Literacy & Educational Leadership

Phones and social media present a significant challenge to the academic and social-emotional development of adolescents. To attempt to mitigate these issues, schools are increasingly implementing policies that restrict phone use while at school. This study looks at the impact of a cell phone restriction policy on student perceptions of their own social-emotional learning (SEL) at a private international school in Brazil. Utilizing a quantitative questionnaire with Likert scale prompts, the research gathered data from 71 students across grades 6 through 12, with a focus on their self-reported perceptions of five core SEL skills: self-awareness, self-management, social awareness, relationship skills, and responsible decision-making.

The Effect of Breakfast Skipping on Mental Health and Academic Performance in College Students

Josh D'Angelo, Dietetics and Nutrition
Faculty Advisor: Danielle King, Dietetics and Nutrition

Breakfast skipping is common among college students and has been associated with adverse mental health outcomes and reduced academic performance. Commonly noted barriers to breakfast consumption include perceptions of inadequate time, lack of appetite, and food availability. Thus, the purpose of this study was to examine the relationship between breakfast skipping, mental health, and academic performance in college students. A cross-sectional mixed methods design was employed. Participants completed an online survey assessing: 1.) breakfast frequency; 2.) mental health (DASS-21, PHQ-9, and GAD-7); and 3.) academic performance. Open-ended questions provided participants with opportunity to report richer detail on perceptions of study outcomes. Only 21.7% of participants (n=23) reported eating breakfast daily, while 26.1% reported eating breakfast rarely or never eating breakfast. The most common reasons for breakfast skipping were lack of time (52%) and lack of appetite (43%). Overall mean mental health scoring among participants indicated mild symptom levels (DASS-21: 16.74, GAD-7: 6.24, PHQ-9: 6.57). Participants mean GPA was 2.36 (± .84). No significant associations were found between breakfast frequency and mental health scores or academic performance. Breakfast frequency was negatively correlated with participants' confidence in eating breakfast regularly (p =.019). The results concluded with no statistically significant relationship between breakfast skipping, mental health, and academic performance; the smaller sample size may have contributed to the observed contradictions with previous studies. Future research is warranted to further

explore temporal macro- and micro-nutrient intake on mental health and academic performance.

Examining the Relationship Between Dietary Intake and Mental Health

Nicholas Marrara, Dietetics
Faculty Advisor: Danielle King, Dietetics and Nutrition

High dietary intake of added sugars has been linked to chronic disease risk and negative effects on mental health. Young adults may be particularly vulnerable to these consequences due to ongoing brain development and dietary habits. This study aimed to examine the relationship between added sugar intake and symptoms of anxiety and depression in college students. A cross-sectional study was conducted among college students aged ≥18 years. Participants completed an online questionnaire assessing added sugar intake and mental health. Sugar intake was measured using a modified food frequency questionnaire, and participants were categorized based on intake. Mental health was assessed using the validated Depression Anxiety Stress Scale (DASS-21). Pearson correlations were used to examine relationships among variables. Participants (n=14) were young adults (mean age = 25.5 years) mostly white females that demonstrated moderate added sugar intake patterns, with overall normal levels of anxiety, depression, and stress. Anxiety scores were strongly correlated with stress scores (r = 0.898, p < 0.001) and moderately correlated with depression scores (r = 0.600, p = 0.023). Stress scores were also positively associated with depression scores (r = 0.683, p = 0.007). Beverage frequency was negatively correlated with beverage portion size (r = -0.702, p = 0.005). No significant associations were found between added sugar intake and mental health outcomes. While with both the mental health questions being answered, alongside with the added sugar intake questions, it was not significantly associated with anxiety or depression in this sample. Further research with larger sample sizes is warranted to better understand this relationship.

IQ Testing: A Racist and Ableist Past and Present

Adam Kulwicki, Applied Behavior Analysis; Milo Frias
Faculty Advisor: Katie McCabe, Exceptional Education

This project goes into detail about the inception of IQ testing and the fallacies it still carries to this day. It will specifically focus on the racist and ableist effects on American society that standardized IQ testing had. It presents historical references as well as modern day examples of how the IQ test and other standardized tests have racist and ableist factors built into them that preclude people not in-tune with American culture or

those who are disabled from producing a score that is indicative of their true abilities. It will present real IQ test questions as a reference for the reader and allow them to be put in the awkward shoes of someone having to take a slanted test that holds sway in their options in life.

Navigating Through The United States' Special Education System for Refugee and Immigrant Families

Emily Owens, Applied Behavior Analysis; Andrea Hubbard, Applied Behavior Analysis; Tanzin Latif, Applied Behavior Analysis
Faculty Advisor: Katie McCabe, Exceptional Education

We are looking at how immigrant and refugee families find their way through the American special education system. Many families feel overwhelmed by the process. U.S. schools have their own structures, language, and rules, which can be hard for newcomers to figure out. Laws such as the Individuals with Disabilities Education Act (IDEA) are meant to protect students, but these protections only work if families know about them and feel confident using them. Language barriers make things even harder. Translations do not always capture everything, and families might be unsure about asking questions. Cultural differences matter too. Many families come from places where disability is seen differently than in the U.S. Past experiences with schools, especially for refugees, also affect how families see teachers and support systems. Educators usually do their best, but they may not have enough training to fully understand families' backgrounds. This can cause misunderstandings. For example, a quiet parent might be seen as not interested, when they are actually showing respect or taking in new information. These gaps in understanding can mean missed opportunities. Students might not be identified correctly or get the right services. Unintentional barriers, like assumptions, bias, and not using culturally responsive practices, can affect decisions about evaluations and placement.

Culturally Responsive Classroom Management

Jennifer Peter, Applied Behavior Analysis; Kevin Carpenter, Applied Behavior Analysis;
Faculty Advisor: Katie McCabe, Exceptional Education

Cultural bias plays a significant role in shaping classroom management practices. The issue of cultural bias and its impact on teachers' ability to effectively manage problem behaviors and communicate expectations with students and families will be explored. To be culturally competent, one must understand their own background and how it

relates to their assumptions about human behavior. Culturally responsive classroom management entails developing classroom rules and disciplinary practices which are mindful, respectful, and reflective of students' cultural backgrounds. Such plans establish: a physical environment conducive for all to learn, expectations for behavior, appropriate interventions for behavior problems, and a system to effectively communicate with families. There are specific approaches and strategies for implementing culturally responsive classroom management which depend upon the teacher's prerequisite skills and their willingness to commit to an ongoing process of reflection and adjustment. Teacher preparation programs can perpetuate cultural bias as they often do not include or have little content related to multicultural and anti-racist teaching practices which leaves new teachers without the expertise they need to work with diverse students more effectively.

Media's Depiction of Autism Creating Polarization of Emotion

Samara Danis, Exceptional Education; Applied Behavior Analysis; Emilie Toth, Exceptional Education; Applied Behavior Analysis; Abby Valone, Exceptional Education; Applied Behavior Analysis
Faculty Advisor: Katie McCabe, Exceptional Education

How Autism is portrayed in the media strongly shapes the public's attitude, perception, and expectations. Television, social media, and online influencers often present stereotypical or exaggerated depictions of autism, leading audiences to form strong, and sometimes conflicting, beliefs about what autism "really" looks like. Popular shows frequently highlight intellectually gifted, socially awkward white male characters. This can create admiration but in turn can push the idea that individuals with autism must possess exceptional talents or intellectual skills to be valued members of society. At the same time, portrayals that emphasize struggle or pity can evoke sympathy while unintentionally framing autism as inherently tragic or a "disease". Other forms of representation, such as the controversial "Autism Barbie", have further divided these reactions by raising questions about whether they promote awareness or stereotypes. Each person with autism is different in the way that their autism is presented, such as sensory seeking or sensory avoidant. This topic matters in the context of disability and diversity because polarizing media narratives influence how society responds to individuals with autism across settings such as schools, clinics, and the community. When portrayals are limited, stereotypical, or emotionally charged, they can contribute to misunderstandings, bias in identification, and unrealistic expectations of strengths or challenges within the autism community.

Navigating Special Education Across Cultures: Immigrant and Refugee Families' Experiences with Disability Services

Taylor Gehen, Applied Behavior Analysis; Joanna Mertz, Applied Behavior Analysis
Faculty Advisor: Katie McCabe, Exceptional Education

Immigrant and refugee families often face complex challenges when navigating special education systems and disability-related services in public schools. Although disability services are legally protected in countries such as the United States under the Individuals with Disabilities Education Act (IDEA), access and engagement are not experienced equitably across culturally and linguistically diverse communities. These families frequently contend with overlapping systems, including immigration processes, language acquisition, employment instability, cultural adaptation, and educational bureaucracies, which can create barriers such as limited language access, inadequate interpretation, cultural misunderstandings about disability categories, mistrust of institutions, bias in referral and evaluation processes, and limited knowledge of procedural safeguards and rights. Cultural understandings of disability also vary widely: in some communities, disability may be stigmatized, spiritualized, medicalized, or understood through relational frameworks that differ from Western special education models, shaping family-school communication, participation in Individualized Education Program (IEP) meetings, and service uptake. This issue is particularly important for educators, school psychologists, speech-language pathologists, and other service providers who play a central role in assessment, eligibility determination, and family engagement, because without cultural humility and structural awareness, professionals may unintentionally perpetuate inequities in identification, placement, and support. By centering lived experiences and drawing on critical scholarship, approaches to special education can move beyond deficit-based narratives toward culturally sustaining, equity-driven practices that better support immigrant and refugee families.

Who Gets to Have ADHD? Racial and Gender Bias in ADHD Diagnosis and School-Based Identification

Aiyana Reynolds, Psychology (4+1 ABA Program); Kaitlin Gauggel, Exceptional Education
Faculty Advisor: Katie McCabe, Exceptional Education

Attention-Deficit/Hyperactivity Disorder (ADHD) is often described as a highly prevalent neurodevelopmental diagnosis. However, growing research suggests that ADHD identification is shaped not only by neurological criteria, but also by gender norms, racialized perceptions of behavior, and culturally embedded expectations within

educational and clinical systems. As a result, diagnosis is not distributed equitably across populations. Girls are consistently underdiagnosed or diagnosed later than boys. Traditional diagnostic criteria were developed around hyperactive and externalizing behaviors more commonly observed in males. In contrast, girls are more likely to exhibit inattentive symptoms, internalized distress, or socially masked behaviors, often compensating in ways that delay identification. This can result in adverse outcomes such as chronic academic underperformance, anxiety, depression, low self-esteem, and delayed access to interventions and support services. Racial disparities further complicate identification. Black and Brown children are less likely to receive ADHD diagnoses in clinical settings, yet are disproportionately disciplined in schools for behaviors consistent with ADHD. These patterns reflect systemic barriers to care and racialized interpretations of behavior. As a result, these individuals face increased risk of misdiagnosis, exclusionary discipline (e.g., suspensions), stigmatization, disrupted educational trajectories, and reduced access to appropriate treatment and accommodations. This issue highlights the intersection of disability, race, and sex within systemic inequities. Understanding these dynamics is essential for developing more equitable, culturally responsive, and gender-informed identification and support practices.

How Does Facilitated Dramatic Play Affect Collaborative Play Skills in an Early Childhood Self-Contained Setting?

Hailee Cipollina, Early Childhood Special Education; Andrew Cohn, Early Childhood Special Education; Katy Fantuzzo, Early Childhood Special Education; McKenzie Lohmer, Early Childhood Special Education
Faculty Advisor: Kristy Blask, Exceptional Education

Students with disabilities often need extra support in social emotional learning. Special education teachers have a unique opportunity to teach students these skills and show them how to use them in a variety of settings. Explicit instruction is a systematic approach that allows teachers to directly and efficiently teach any skill. Dramatic play allows students to act out scenarios involving social emotional skills like collaboration. Teacher facilitated dramatic play allows for skills like shared play episodes, cooperative turns, and joint engagement to be targeted and practiced. This study plans to use explicit instruction to teach K-2 students specific collaborative play skills while facilitated dramatic play will be used to see how the students implement what they have learned. The research is expected to show an improvement in collaborative play skills during dramatic play.

Looking Back to Move Us Forward: How Zen Can Improve the Standardized Curriculum

Joseph Cannizzaro, English Education (7-12)
Faculty Advisor: Leigh Duffy, Government, Planning, and Philosophy

This proposal examines how principles drawn from Zen philosophy—specifically Compassionate Awareness, Beginner's Mind, and mindful responsiveness—can be used to reimagine rigid, standardized curricula. Grounded in classroom experiences where scripted instructional models failed to meaningfully engage students, the presentation argues for a shift toward more flexible, student-centered pedagogies. By integrating these Zen concepts with established practices such as Differentiation and Multimodal instruction, teaching is reframed as an adaptive, empathetic process that attends to the full scope of students' intellectual and personal needs, rather than as the uniform delivery of predetermined content. The presentation highlights practical applications of these ideas across both K–12 and college-level contexts. Drawing on specific examples, it demonstrates how introducing Beginner's Mind through contemporary media, adapting lessons to diverse learning profiles, and validating digital and multimodal literacies can significantly enhance student engagement, comprehension, and autonomy. Additionally, it explores the broader pedagogical implications of Compassionate Awareness, including increased instructional flexibility, more responsive approaches to diverse classrooms, and the potential to move beyond traditional exam-based assessment toward portfolio-driven models that emphasize growth and authentic learning. Collectively, this proposal positions Zen-informed pedagogy as a viable and transformative approach within even the most restrictive curricular environments.

Project Based Assessments as an Alternative to New York State Regents to Better Serve Students

Jennifer Segura Lopez, English Education (7-12)
Faculty Advisor: Pixita Del Prado, Elementary Education, Literacy & Educational Leadership

As a student who took the Regents in order to graduate and now as a preservice English Language Arts teacher who is expected to prepare students for this high stakes test, I have wondered about the value of a project based assessment approach. Teachers spend a significant amount of time dedicated to getting our students prepared for standardized testing.This preparation and the exam itself causes great stress for students and teachers alike. Many students experience challenges during exams such

as language barriers, test-taking anxiety, and panic attacks due to the pressure to perform. Transitioning towards a project based learning environment can help to alleviate this anxiety. Project based assessments might help reduce stress and help students develop valuable skills such as critical thinking, effective communicating, global citizenship, reflective and future focus, academically prepared, and creative innovating Project based assessments allow students to showcase their understanding of the material in a less stressful environment, therefore creating a student centered approach. Furthermore, many students have a better chance of graduating through project based assessments. With New York State adopting the portrait of a graduate initiative, we can use project based assessment to help integrate the goals from this new development.

GIS Analysis of Residential Proximity to Green Space in the City of Buffalo

Bill Jackson, Great Lakes Environmental Science
Faculty Advisor: Tao Tang, Geosciences

The distribution of parks and other urban green spaces in the City of Buffalo is neither uniform nor equitable. The percentage of residential-zoned parcels that are within walking distance of public green space varies across the city's 35 different planning neighborhoods. This analysis used GIS to quantify and map these variations. Three vector feature class datasets (parcels, parks, and neighborhoods) were downloaded from the City of Buffalo geospatial data website and uploaded into ArcGIS Pro. Selection by attributes, selection by location, spatial join, and buffer tool were utilized to produce output maps illustrating the percentage of residential-zoned parcels in each Buffalo neighborhood that are within walking distance (defined here as 0.25 miles) to public green space. The results of this analysis indicate which neighborhoods the City of Buffalo should be prioritizing for the development of new parks and green space. For example, there are over 15,000 vacant parcels in the City of Buffalo (about 8,000 of which are owned by the city), and over 2,500 vacant parcels in the Broadway-Fillmore neighborhood alone (Partnership for the Public Good, 2023). This represents massive untapped potential to create more parks and other green space.

Analyzing the Extent of Pavement and Commercial Rooftop Space in a Heavily-Developed Area of the City of Buffalo

Bill Jackson, Great Lakes Environmental Science
Faculty Advisor: Tao Tang, Geosciences

The City of Buffalo has a combined sewer system, meaning it receives both stormwater runoff and sewage. 53 Combined Sewer Overflow (CSO) outfalls exist along city waterways, for the discharge of excess flow (i.e. the untreated stormwater/sewage mixture) during CSO events, which are often necessitated by rainfall and/or snowmelt that overwhelms the system beyond capacity (Ghodsi et al., 2021). Impervious surfaces, such as city streets, parking lots, and rooftops, prevent the absorption of stormwater into the ground by plants and soil (Jean et al., 2024). Contaminants that accumulate on impervious surfaces (e.g. automobile fluids, tire dust, construction debris) are washed into the sewer system by rainfall and contribute to pollutant loads (Chun et al., 2024). Therefore, urban green space is useful to intercept precipitation before it reaches city storm drains. The study area for this analysis was a heavily developed area in the City of Buffalo. The purpose was to use publicly-available remote sensing images, and the Supervised Classification of land cover technique, to quantify the amount of pavement and rooftop space, and the ratio of impervious surfaces to vegetation. This information will help to inform stormwater management and efforts to improve green spaces in the City of Buffalo. It establishes a baseline for the total impervious surface in this area, from which estimations of stormwater inputs can be derived. It also provides a baseline for the potential green roof space that can be utilized, and the subsequent stormwater runoff reductions that could be achieved.

Assessing Climate Change Impacts on the Trophic Dynamics and Prey Availability for Salamander Species Using ArcGIS

Brigid Benson, Biology
Faculty Advisor: Tao Tang, Geosciences

My research examined the impact of climate change on trophic dynamics and prey availability for terrestrial salamanders in New York State. Predator-prey interactions are an essential component of ecosystem stability, and shifts in temperature and precipitation can change those dynamics. For moisture-dependent salamanders and their food resources, increased temperatures and decreased precipitation can result in detrimental effects. With focus on Plethodon cinereus and Plethodon glutinosus (two abundant New York terrestrial salamanders), this research examines how climatic variables influence salamander habitat distribution and spatial overlap with key prey taxa, including Aphaenogaster ants, isopods (Armadillidium vulgare), and earthworms (Lumbricus terrestris). Using ArcGIS, species occurrence data from the Global Biodiversity Information Facility (GBIF) were added to land cover, temperature, and precipitation maps to model current habitat suitability and identify areas of concern. Buffer and spatial analysis tools were used to estimate salamander ranges and evaluate

overlap with prey distribution under present and future projections (2040-2069). Results show that salamander habitats are closely tied to forested and moisture-rich environments, and areas experiencing higher temperatures and reduced precipitation show less overlap with moisture-sensitive prey. Future projections indicate that vulnerable regions will continue to warm and dry, increasing the likelihood of trophic stress due to climate change. These results provide insight into the risk of climate-driven environmental shifts on salamander ecosystem processes and demonstrate how GIS can be used in conservation research.

Examining the Relationship Between Dietary Intake and Mental Health

Nicholas Marrara, Dietetics
Faculty Advisor: Tina Colaizzo-Anas, Dietetics and Nutrition

High dietary intake of added sugars has been linked to chronic disease risk and negative effects on mental health. Young adults may be particularly vulnerable to these consequences due to ongoing brain development and dietary habits. This study aimed to examine the relationship between added sugar intake and symptoms of anxiety and depression in college students. A cross-sectional study was conducted among college students aged ≥18 years. Participants completed an online questionnaire assessing added sugar intake and mental health. Sugar intake was measured using a modified food frequency questionnaire, and participants were categorized based on intake. Mental health was assessed using the validated Depression Anxiety Stress Scale (DASS-21). Pearson correlations were used to examine relationships among variables. Participants (n=14) were young adults (mean age = 25.5 years) mostly white females that demonstrated moderate added sugar intake patterns, with overall normal levels of anxiety, depression, and stress. Anxiety scores were strongly correlated with stress scores ($r = 0.898$, $p = 0.001$) and moderately correlated with depression scores ($r = 0.600$, $p = 0.023$). Stress scores were also positively associated with depression scores ($r = 0.683$, $p = 0.007$). Beverage frequency was negatively correlated with beverage portion size ($r = -0.702$, $p = 0.005$). No significant associations were found between added sugar intake and mental health outcomes. While with both the mental health questions being answered, alongside with the added sugar intake questions, it was not significantly associated with anxiety or depression in this sample. Further research with larger sample sizes is warranted to better understand this relationship.

Oral Presentations

4:30–5:30, Caudell 110

Exploring the Influence of Sleep Disorders on Speech Intensity in Individual's with Parkinson's Disease

Kathryn Bean, Speech-Language Pathology
Faculty Advisor: Anita Senthinathan, Speech-Language Pathology

This study aimed to examine the impact that sleep disorders and disturbances have on speech intensity in individuals with Parkinson's disease (PD). PD is a neurodegenerative disease with 60%-90% of individuals experiencing sleep disturbances (Schütz et al., 2022) and 89% with impaired communication abilities (Dashtipour et al., 2018). In the general population, sleep loss leads to problems with cognition and social interactions (Lim & Dinges, 2010; Beattie et al., 2015). In addition, communication difficulties in PD are associated with reduced overall quality of life, withdrawal from social interactions, and decreased participation (Miller et al., 2006). This pilot study aimed to examine the relationship between sleep disturbances and speech symptoms as this has the potential to inform motor speech disorder evaluation and treatment. Participants were divided into Group 1 and Group 2 (low vs high PDSS-2 scores). RM-ANOVA indicated a significant effect of group ($F(1, 4) = 8.67$, $p = .042$, partial $\eta 2 = .68$) such that individuals with PD and high PDSS-2 scores had significantly lower speech intensity across all speech tasks. Results revealed a between-group trend in the maximum loudness task only, suggesting that this task may help to differentiate between the two groups. Preliminary findings indicate that effective communication for participants with higher sleep disorder scores may be more difficult than for those with lower sleep disorder scores. The results of this pilot study highlight the need for further examination of the impact of sleep disorder on speech and communication.

Collegiate Athlete Perceptions of Caffeine Usage and Its Use for Athletic Performance

Haley Mazgaj, Dietetics
Faculty Advisor: Danielle King, Health, Hospitality, Nutrition and Dietetics

Endurance-trained athletes commonly use caffeine. While highly studied, habitual caffeine consumption is understudied, particularly in collegiate athletes. Thus, the purpose of this study was to understand habituated collegiate athletes' perceptions of caffeine usage for athletic performance, and assess daily and competition day caffeine habits. A cross-sectional, mixed-methods exploratory research design was employed. A questionnaire consisting of open- and close-ended questions was used to assess perceptions of caffeine usage. Validated dietary recalls, NHANES Food Frequency Questionnaire, and the Diet History Questionnaire III were adapted to assess caffeine habits. Descriptive statistics and Chi-squared tests assessed quantitative measures; thematic analysis analyzed qualitative data. Participants (n=19) were predominantly (78.9%) female. Per sport, cross country and/or track (33.3%), hockey (64.3%), and lacrosse (66.7%) reported the same consumption habits on competition days, while wrestling (50%) reported consuming less. Interestingly, 75% of males and 33.3% of females reported not consuming soda, but 60.1% of females and 50% of males reported consuming energy drinks. No statistically significant results were found between genders in relation to caffeine perceptions. Qualitative findings suggest that both genders consume caffeine to feel energized. Findings suggest there is no perception of added benefit to consume more/different forms of caffeine prior to games for athletes consuming caffeine habitually. Additionally, while participants reported caffeine provides energy, the forms of caffeine collegiate athletes are consuming may suggest a nutrition gap in knowledge regarding caffeine sources. Further investigation is warranted to better understand the impact caffeine has on performance in habitual collegiate athletes.

Assessing the Effects of Sodium and Potassium on Athletic Performance In Collegiate Basketball: A Randomized Control Trial

Evelyn Grapes, Nutrition and Dietetics
Faculty Advisor: Danielle King, Health, Hospitality, Nutrition and Dietetics

Athletes undergo hard, strenuous activity that may result in increased sweat loss, disturbances in an athlete's water balance, and ultimately, one's performance. Sweat is composed of not only fluids, but ions and electrolytes including sodium, chloride, and potassium. The makeup of sports drinks that athletes choose to rehydrate with are important given the large electrolyte losses that result from high sweat rates. Thus, the purpose of this study was to understand how different sport drink compositions affect athletic performance in collegiate basketball players. This study employed a pre/post-test randomized controlled trial design. Athletes performed the T-Test and 300-yard shuttle test following a regularly scheduled basketball practice for both study arms.

Participants drank only water in arm 1 and only their assigned sports drink (Gatorade Endurance, Body Armor, or Crystal Light (placebo)) and water in Arm 2. Participants (n=15) were male collegiate basketball players. The average T-Test time significantly (p<0.0001) decreased from arm 1 to arm 2 (16.24 (+/- 1.28) and 14.72 (+/- 0.946), respectively). A one-way ANOVA was used to compare times between groups (Gatorade vs Body Armor vs Crystal Light); no significant differences in time were observed between the sports drink groups and control. Results may suggest that choosing an electrolyte-containing beverage, as opposed to water, may improve athlete's performance in the T-Test. However, exact contents of electrolyte-containing sports drinks, as well as confounding variables, warrant further investigation.

The Differences of Speech-Language Pathology Services Worldwide: How Patients in Need Are Affected

Aliyah Hodges, Speech-Language Pathology; Sydney Shuta, Speech-Langauge Pathology
Faculty Advisor: Anita Senthinathan, Speech-Language Pathology

This research looks at differences in speech-language pathology services across the globe and how these differences can impact patient care across the lifespan. Currently, there are large gaps in the data available related to speech therapy services in countries other than the Americas. This led to the current research question. Is there a difference in access to services around the globe and if so, what are some causes of these service disparities? This research review aims to shed light on the gaps related to workforce shortages, barriers to access, education, socioeconomic inequalities, and other critical issues. Increased knowledge of these gaps may allow for awareness to be spread within the communication sciences and disorders community, which may promote improvements in access to care across the globe in the future.

Education Roundtables

4:30–6:00, Caudell 123, 127, and 234

Master's Projects Roundtable 1: Social Studies & Culturally Responsive Teaching

Caudell 123

Danae Hardy, Curriculum and Instruction
Bridging Gaps: Community Schools and Their Impact on Urban Neighborhoods

Chloe Adams, Curriculum and Instruction
The Effects of Teaching Social Studies Through Community Based Learning

Jacob Jaroszewski, Curriculum and Instruction
Culturally Responsive Curriculum in Social Studies: Whose Stories Are Told?

Jessica Celniker, Curriculum and Instruction
Primary Teachers Supporting Students Experiencing Poverty Who Struggle with Emotional Regulation and Social Skills

Hannaa Harding, Curriculum and Instruction
The Impact of Social and Emotional Learning on Student Behavior in Elementary Classrooms

Faculty Advisor: Alayla Ende, Elementary Education, Literacy & Educational Leadership

Master's Project Roundtable 2: Reading & Early Childhood

Caudell 234

Briana O'Neill, Curriculum and Instruction
The Impact of Structured Play-Based Activities on Phonemic Awareness Growth in Kindergarten Students

Melissa Danielewicz, Curriculum and Instruction
The Impact of Structured Small-Group Reading Instruction on Reading Comprehension

Sakura Pennington, Curriculum and Instruction
Promoting Reading Interest Among Reluctant Readers in School Settings

Brianna Starzynski, Curriculum and Instruction
Emotional Labor in Early Childhood Teaching

Bailey Bishop, Curriculum and Instruction
Play-based learning to Develop Social Competence and Emotional Self-regulation

Faculty Advisor: Alayla Ende, Elementary Education, Literacy & Educational Leadership

Master's Projects Roundtable 3: The Classroom Environment & Student Behavior

Caudell 234

Jennifer Flick, Curriculum and Instruction
Balancing Reward Systems and Strategies That Promote Intrinsic Motivation

Alexandia Thibeault, MIITC
Social-Emotional Learning Programs: Impact on Elementary Student Behavior and Academic Success

Marcianna Rogacki, Curriculum and Instruction
Supporting Elementary Students with Behavioral Challenges Through Targeted SEL Intrventions

Courtney Metzger, Curriculum and Instruction
Strategies for Positive Change: Improving Student Behavior and Classroom Environment in Elementary Education

Lyndijean Lowry, Curriculum and Instruction
Integrating SEL Strategies to Improve Classroom Engagement

Faculty Advisor: Alayla Ende, Elementary Education, Literacy & Educational Leadership

Masters Project Roundtables 4: Social Emotional Competency & Mental Health Support

Caudell 127

Abigail Silsby, Curriculum and Instruction
The Impact of the COVID-19 Pandemic of Social-Emotional Development in Elementary Schools

Stephen Weiss, Curriculum and Instruction
Mindfulness and Emotional Regulation in Elementary Students

Kailey Ludlow, Curriculum and Instruction
Social Emotional Learning Skills Contributions to Student Success

Alissa Backert, Curriculum and Instruction
Supporting Stress and Anxiety Management in Elementary Students Through Social-Emotional Learning Strategies

Amaya Woods, MIITC
Mental Health Needs of Elementary School Students

Faculty Advisor: Alayla Ende, Elementary Education, Literacy & Educational Leadership

Masters Project Roundtable 5: Technology & Home/School Connections

Caudell 127

Christina Lamb, Curriculum and Instruction
Parental Involvement in Elementary School

Anna Braddell, Curriculum and Instruction
The Impact of Technology on Elementary Student Learning and Engagement

Jordan Gross, MIITC
The Impact of Technology on the Cognitive Development of Young Children

Lilli Adimey, Curriculum and Instruction
Family Involvement: Impact on Academic Achievement and Classroom Behavior

Lauren Vanderwerf, Curriculum and Instruction
The Effects of Students' Home Life on Academics and Behaviors

Faculty Advisor: Alayla Ende, Elementary Education, Literacy & Educational Leadership

Masters Projects Roundtable 6: Inclusive Practices

Caudell 123

Samantha Pietrzak, Curriculum and Instruction
Students with Autism: Do Teachers Feel Prepared?

De'Avion Dalton, Curriculum and Instruction
Teaching Strategies That Meet the Needs of Gifted and Talented Students in Mixed-Ability Inclusive Classrooms

Sara Zaborny, MIITC
Effects of the Classroom Environment and Differentiation of Teaching for English Language Learners in Elementary Classrooms

Xamani Clarke, Curriculum and Instruction
How Inclusive Assessment Practices Impact Academic Performance and Confidence Among Neurodivergent Learners

Anna Puchalski, Curriculum and Instruction
Trauma-Informed Teaching Strategies for Increasing Academic Engagement and Lessening Anxiety in English Language Learners

Faculty Advisor: Alayla Ende, Elementary Education, Literacy & Educational Leadership