E-Poster Session Abstracts

AGRICULTURE

THE IMPORTANCE AND RELEVANCE OF FARM SUCCESSION PLANNING

Presenter(s): Smith, Emma, Undergraduate, Agriculture

Mentor: Dr. Maria Boerngen

Despite what many may think, approximately 97% of the farms and ranches within the United States are family farms. It has been identified that the number one goal of most farms is survival, which includes being passed on to the next generation of producers. Planning and preparing for the succession of the operation from one generation to the next can be incredibly difficult, which is why farm transition planning is vital. According to the 2022 USDA Census, just under 53% of U.S. farms are involved in succession planning, which suggests that more farm families need to be prepared for the trials and tribulations this process will bring. It is crucial that families prepare ahead of time and fully communicate their thoughts, desires, and goals. One of the most common challenges families face while going through this process is relying too heavily on external professionals such as accountants, lawyers, and succession coaches. In addition to overreliance on outside entities, greed, entitlement, lack of communication, financial strains, and legal obstacles are just a few of the common issues that farm families face during this planning process. To address these issues, several agricultural advocacy organizations have come up with suggestions that may help steer transition planning in a positive direction. Communicating thoroughly and clearly, establishing a timeline, assigning roles, and addressing sensitive or difficult topics are just a few of the many expert- recommended strategies. To gain first-hand knowledge and insight on farm succession planning, I will be interviewing farmers and ranchers who have successfully completed this transition. By capturing the experiences of these producers, I can assist other farm families in learning from those who have gone before them, thus creating a more informed and seamless transition for their family operations.

GEOGRAPHIC ORIGINS AND PERCEPTIONS OF LAW ENFORCEMENT

Presenter(s):   Carr, Ron, Graduate, Criminal Justice Sciences

Mentor: Dr. Jessie Krienert

Authorship: Ron Carr

This study examines how geographic origins influence the perceptions that Illinois State University students have of law enforcement. This study is grounded in Social Identity Theory and Procedural Justice theory and explores variations in how students from urban, suburban, and rural hometowns differ in their perceptions of law enforcement. Also, the role of media in shaping students' perceptions is explored. Survey data collected from a sample of 150 students was used to identify variation in attitudes toward law enforcement. Findings revealed that students from urban areas tended to have more negative views while students from rural areas had more positive views. These findings point out the importance of fair treatment and transparency in ensuring trust between police and the communities they serve. By understanding how geographic background shapes perceptions, this study provides useful insight into improving community-police relationships as well as promoting fairness in policing practices.

THE IMPACT OF INTRODUCTORY PUBLIC SPEAKING COURSES ON STUDENT RETENTION IN HIGHER EDUCATION

Presenter(s):   Murray, Taylor, Graduate, Communication

Mentor: Dr. Cheri Simonds

Co-Mentor: Dr. Stephen Hunt

This study examines how Reddit users discuss how their family communication patterns, and relationship closeness was affected by political discourse surrounding the 2024 election with their assumed close family members. Using a thematic analysis to look at a Reddit thread three major themes were found: conflict escalation and relationship strain, perceived betrayal and value misalignment, and avoidance as a communication strategy. Findings revealed that political disagreements frequently led to heightened arguments, emotional exhaustion, and sometimes estrangement within families. Many individuals expressed using avoidance to preserve emotional well-being, challenging established communication patterns and harming relationship closeness. Taking a closer look at this topic provides insight into navigating family relationships in a time of high political polarization.

CREATIVE TECHNOLOGIES

THE GAME JAM GAME: "DICK-TIONARY: THE INSULT INDEX"

Presenter(s):   Bauer, Trinity, Graduate, Creative Technologies

Mentor: Dr. Kristin Carlson

For the 2024 Game Jam, we were challenged to make a game within three days. My group and I created "Dick-tionary: The Insult Index" as a fun game for friends or family to play together. There is nothing like insulting someone in a funny manner. You won't even get in trouble for insulting them!

The goal of the game is to combine words to craft comedic insults for your opponents. Hurl insults and try to get the most points to win!

A CASE STUDY OF AI-ASSISTED TEACHER EVALUATION PREPARATION

Presenter(s):   Beinborn, Jacob, Graduate, Creative Technologies

Mentor: Dr. Kristin Carlson

This case study examines the integration of Large Language Model (AI) Systems into teacher evaluation preparation. This study examines how AI can be leveraged as a tool for reflection and professional documentation. This case was conducted with Claude AI within a Danielson Framework evaluation and identified a methodology for enhancing and assisting educators in the preparation for their district evaluation processes. In this methodology, there are examinations of the ways these tools can support through methodical and tailored interview questions, framework alignment, artifact and evidence documentation, and professional reflection.

The strategies developed in this study seek to help improve the impact, accuracy, and efficiency of the evaluation process. This includes structuring prompting to target domain indicators and identification of supporting artifacts specific to a teachers individual context.

This study contributes to continuing examinations of the ways that AI tools can be applied to the education sector and its professional development processes.

THE COGNITIVE EFFECTS OF VIDEOGAMES IN KIDS AND ELDERS

Presenter(s):   Higgins Aranda, Ellen, Graduate, Creative Technologies

Mentor: Dr. Kristin Carlson

Video games have been a prominent part of culture for the past 30 years, in this time they have been subject to much social commentary, some of it positive but a good chunk of it being negative. Many of their side effects are not fully known but there is evidence that suggests that video games can have a positive result in people suffering from dementia and in how kids' reflexes develop…

FRAGILE WATERS: PROJECTING LIFE BELOW

Presenter(s):   Holtz, Lindsey, Graduate, Creative Technologies

Mentor: Dr. Kristin Carlson

Authorship: Lindsey Holtz

Our oceans are very fragile ecosystems that when damaged, can have catastrophic effects to the life that lives there. The goal of my work is to bring research about our world's oceans to a wider audience using glass, projection mapping, and interactive elements. By examining the specific ways in which human activities disrupt oceanic systems, an effective art installation can be developed to better educate and inform others. Firstly, the medium of glass will be used to represent different sea life animals including sea turtles, jellyfish, and schools of fish. Glass as a medium is a direct metaphor to represent how fragile this sea life is, and will be the canvas for projection mapping. Additionally, with any art installation an emotional aspect can be reached. This will be accomplished by involving interactivity. As viewers get closer to these glass works, the colors will fade from the projections. As they move further away, the color will come back. This will make the viewer have an emotional connection to the topic by seeing the correlation of their presence on the changes to the environment. Throughout the entirety of the installation space, research about the specific animals represented will be given along with ways that they are effected, and what the viewers can do to help. The exhibition of this showcases a colorful glass coral reef with fish encased in a round tank full of water. As viewers enter the space, a drop of oil will be dropped into the tank to represent the human caused long-term consequences for marine life. This will give the viewers a visual example of how negatively humans affect these fragile ecosystems, and how sometimes the damage cannot be undone. By using glass, projection mapping, and interactive elements with the guidance of research to create an art installation, the knowledge about our fragile oceans can be wider spread, and result in the saving of one of the Earth's most valuable assets.

HOW MUST THE SHOW GO ON? ADVANCEMENT OF TECHNOLOGY AND ITS EFFECTS ON THE LIVE PERFORMANCE EXPERIENCE

Presenter(s):   Murray, Anthony, Graduate, Creative Technologies

Mentor: Dr. Kristin Carlson

The advancement of technology has had tremendous effects on live performances for both the audience and the performers. Cellphones, cameras, live streaming, and social media have dramatically changed live performances forever. Most will understand the audience point of view but haven't had the opportunity to have firsthand experience as the performer. I am exploring how live performances have changed or not depending on how technology is allowed in the venue.

ENHANCING REAL-TIME FRAUD DETECTION IN UTILITIES: THE ROLE OF AI AND PREDICTIVE MAINTENANCE ANALYTICS

Presenter(s):   Rajput, Shahab Anas, Graduate, Creative Technologies

Mentor: Dr. Kristin Carlson

The integration of Artificial Intelligence (AI) and Predictive Maintenance Analytics (PMA) is transforming fraud detection within the utility sector. Traditional methods of identifying fraudulent activities, such as meter tampering, unauthorized consumption, and billing anomalies, often rely on reactive approaches, leading to revenue losses and operational inefficiencies. This research explores how AI-driven fraud detection systems, combined with predictive maintenance techniques, can proactively identify and mitigate fraudulent activities in real time.

Through machine learning algorithms, AI can analyze vast datasets from smart meters, customer usage patterns, and historical fraud cases to detect anomalies indicative of fraudulent behavior. Predictive Maintenance Analytics further enhances fraud detection by identifying irregularities in energy distribution networks before they escalate into significant losses. By leveraging predictive modeling, utilities can preemptively flag high-risk accounts and deploy targeted inspections, thereby improving accuracy and reducing false positives.

AUDITORY UNCANNY VALLEY: COGNITIVE NARRATOLOGY IN HORROR AUDIO DESIGN

Presenter(s):   Seelinger, Katharine, Graduate, Creative Technologies

Mentor: Prof. Kristin Carlson

This research explores how to create auditory cognitive dissonance within the context of interactive horror narratives. The evidence relates to the emotional output of audio design within horror video games and explores how to implement audio design techniques to heighten emotional responses within players. Findings from randomized, controlled trials suggest that trends in horror are influenced by the audience consuming it, supporting academic research from cognitive narratology. The importance of audio used in horror-related media have a direct impact on the consumer and change the experience pulled from the media. From these trends, we can use auditory illusions to weaponize cognitive dissonance within horror video game players.

CONSIDERATIONS OF DANGERS IN AR/VR TECHNOLOGIES FOR PHOTOSENSITIVE EPILEPSY AND CYBERSICKNESS

Presenter(s):   Zozzaro, Daniel, Graduate, Creative Technologies

Mentor: Dr. Kristin Carlson

Authorship: Daniel Zozzaro

Epilepsy is a brain disorder that causes seizures. Epilepsy is not the only cause of seizures; however, therefore it is possible for one to have a history of seizures and not be diagnosed with the disorder.

In recent years, there has been a shift of interest of how we experience our world. The technologies of Virtual reality (VR) and Augmented Reality (AR) in particular have shown promise that they can change how we perceive our surroundings. As a result, public interest in these technologies has grown tremendously. In addition, Augmented Reality has been adopted in many professional and academic settings.

Although these kinds of technology have been advancing by leaps and bounds, the nature of the hardware involved (Head Mounted Displays, immersive environments, etc..) creates a barrier for some users. Potential users with preexisting conditions involving senses that AR and VR operate under are often barred from using them.

Since seizures can be triggered by exposure to flashing lights or intense digital movement, those diagnosed with epilepsy can be put at risk and fall under this category. Individuals with a history of seizures are discouraged by their medical advisors to use any VR/AR systems or any related technology that offers an immersive video experience for multiple reasons.

Developers of AR/VR are aware of variations of photosensitivity among users in the general population, and some research has been done to reduce the risks of being affected. However, there are those who would consider themselves a part of the discussion on AR/VR as it relates to individuals with a history of seizures or Cybersickness. These individuals will find that there has been very little research done addressing that community of users.

This paper will examine ways that current AR/VR technologies can be a danger to those who have a history of seizures or Cybersickness. It will also explore what issues have surfaced when AR is incorporated into professional and academic settings and outline any risks a photosensitive user might face when utilizing these tools. This paper will conclude by summarizing several suggestions and recommendations for the developers of AR to consider implementing to make their products safe for users with a history of seizures.

EDUCATIONAL ADMINISTRATION AND FOUNDATIONS

IMPACT OF AGE, GENDER, TECHNOLOGY KNOWLEDGE, TEACHER PREPAREDNESS, AND ICT SKILLS ON THE USE OF TECHNOLOGY IN MATHEMATICS INSTRUCTION

Presenter(s):   Bounouader, Mouna, Graduate, Educational Administration and Foundations

Agyei, Emmanuel, Graduate, Mathematics Education

Jegede, Kehinde, Graduate, Mathematics Education

Mentor: Dr. John K. Rugutt

The study used regression to assess the relationship between the use of technology in mathematics instruction and age, gender, technology knowledge, teacher preparedness, and ICT skills. Regression results indicated that the overall model was statistically significant in predicting the use of technology in mathematics instruction by high school teachers, $F (5, 196) = 25.1$, $R2 = .39$, $R2adj = .38$, $p < .001$. This model explains 39% of the variance in high school teachers' use of technology in mathematics instruction. The regression coefficients indicated that age, ICT skills, and teacher preparedness significantly contributed to the model. The prediction model for using technology in mathematics instruction is as follows: Use of technology = 9.88 + 0.5 Teacher Preparedness + 0.15 ICT Skills − 1.54 Age. The standardized coefficients showed teacher preparedness to be the most influential predictor followed by ICT skills. The study concluded with a discussion of the importance of the study variables.

GENERATIONAL TRAUMA AND HEALING: LATINX/E YOUTH LITERATURE AND MEDIA AS TOOLS FOR MENTAL HEALTH ADVOCACY

Presenter(s):   Cintron Gonzalez, Edcel, Graduate, English

Mentors: Dr. Roberta Trites

My doctoral research examines the intersection of Latinx/e youth literature, media, and mental health, emphasizing the need for transparency and visibility in children's media. Drawing from Meghann Meeusen's Children's Books on the Big Screen (2020), I argue for the importance of diverse cultural representation that affirms Latinx/e identities and promotes mental health awareness. Using Disney's Encanto (2021) as a key example, the presentation explores how themes of generational trauma, anxiety, and family healing resonate with Latinx/e audiences, fostering important conversations around traditionally silenced issues in Latinx/e communities. Furthermore, Encanto offers conversations for Latinx/e families to create safe spaces for discussing mental health. This film also highlights themes of migration, displacement, and the redefinition of home, while positioning Latinx/e youth protagonists as agents of healing and change. Grounded in Gloria Anzaldúa's framework of storytelling as transformative resistance and Jiménez García's metaphor of "side by side," I explore how these narratives foster solidarity and amplify underrepresented voices.

By challenging aetonormative perspectives that prioritize adult experiences, these works center youth as both recipients and agents of mental health support, offering tools for navigating trauma and building resilience. Additionally, I examine current disparities in mental health care access for Latinx/e communities, advocating for equitable and culturally sensitive resources that reflect the lived experiences of Latinx/e families. Through a blend of personal narrative and literary analysis, referencing Latinx/e authors such as Andrea Beatriz Arango and Alexis Castellanos, this presentation underscores the potential of Latinx/e youth literature and media to bridge gaps in mental health discourse. By sharing stories of struggle, identity, and healing, these texts provide transformative opportunities for readers to engage with and address mental health within the Latinx/e community.

ONCE UPON A CLASS: STORYSHARE AS A FRAMING METHOD

Presenter(s): Mizan, Ridita, Graduate, English

Mentor: Prof. Angela Haas

When I taught a new course last semester, I struggled with a familiar challenge: how do we cultivate mutual trust and respect in the classroom without forcing students into pre-scripted learning outcomes? Standardized rubrics, assessment models, and pedagogical norms often assume that learning is measurable, linear, and predefined. However, my experience in this class reinforced a different reality: true learning happens beyond formal outcomes; it emerges organically from the interactions between students, the texts, and the shared classroom space. One of the most impactful ways this unfolded was through storyshare, a practice that reshaped not only how my students engaged with course material but also how I, as an instructor, rethought my role in facilitating learning. In this presentation, I explore the role of storyshare as a framing method that fosters mutual trust, accessibility, and emergent learning. I contrast storyshare with traditional storytelling, arguing that while storytelling often conveys a clear message or moral, storyshare allows for the open exchange of perspectives, inviting students to interpret, connect, and take meaning in their own way. This distinction has profound implications for how we understand learning itself. Through this presentation I hope to share how in my course storyshare enabled students to engage deeply without the pressure of predetermined outcomes, allowing them to experience learning as a collective, relational process rather than an individual task to be completed.

THE BREWING STORM OF ADOLESCENCE: HURRICANE AS METAPHOR IN ASHA BROMFIELD'S HURRICANE SUMMER

Presenter(s):   O'Leary, Heather, Graduate, English

Mentor: Dr. Chris Breu

For those living in Jamaica, hurricanes are a part of life - something dreaded but expected, a part of the culture, the story of that place. But hurricanes can also pose an existential threat, with the ability to wipe out towns, wash away lives, and change everything forever. In Asha Bromfield's coming-of-age novel, Hurricane Summer, the teenage protagonist, Tilla puts it this way: "when a hurricane passes through, it knows no favor. It takes no precedence. When the time is right and it is ready, it will destroy you. It will destroy everything. Even the good things. Even the things you love" (345). In a metaphorical sense, the trials of childhood and adolescence can come storming through a teenager's life, changing everything they thought they knew about the world. Bromfield follows Tilla's experience through a very real storm, while also addressing the trauma Tilla goes through in other aspects of her life.

INFORMATION TECHNOLOGY

ZELANDAR

Presenter(s): Dyer, Zoe, Undergraduate, Information Technology

Mentor: Dr. Elahe Javadi

Authorship: Zoe Dyer

This project uses a cross-platform framework (by Qt) AI-driven calendar app. It aims to allow users to drag and drop website appointment screenshots into the window, where a generative AI model-based agent will process them and update the calendar. This app aims to help users make their schedules on the calendar without typing in. It will help users with time management (conflicting schedules). The app uses Python bindings for the Qt framework local calendar management application to parse appointment information by dragging and dropping screenshots or manually uploading images and saving them to a local database.

I build the applications using the open-source models available on the Hugging Face platform. I will optimize the code for performance and will report on the current opportunities available for students to automate workflows and innovate using different types of available generative AI models.

DRY NEEDLING USE IN PAIN MANAGEMENT FOR TENSION HEADACHES AND MIGRAINES: A CRITICALLY APPRAISED TOPIC

Presenter(s): Faulhaber, Kiara, Graduate, Kinesiology and Recreation

Mentor: Dr. Chelsea Kuehner-Boyer

Clinical Scenario: Tension headaches or migraines can severely deplete a patient's quality of life, and can often be difficult to treat, requiring the use of interventions with negative secondary effects. Dry needling is a therapeutic modality that has risen in popularity among clinicians and healthcare professionals in recent years. Dry needling is performed by highly qualified and certified clinicians and involves inserting medical grade needles into affected muscles to alleviate pain and tension. In recent years research examining the effects of dry needling in chronic musculoskeletal pain has been abundant, however, little research exists on the effectiveness of dry needling on other chronic pain pathologies including headaches. This critical appraisal sought to provide high-level clinical recommendations on the effectiveness of dry needling on migraine and tension headaches. **Focused Clinical Question:** In patients with tension and migraine headaches, what is the effect of dry needling on pain? **Search Strategy:** An electronic search was completed in the fall of 2023 of the Consortium of Academic Research Libraries I-Share Library system, which includes the databases of 89 libraries from colleges and universities throughout the state of Illinois. The search terms and Boolean phrases used were dry needling AND tension headaches. Article inclusion criteria included English language, articles published between 2018-2023, and randomized control trials. Articles were excluded if they were not peer-reviewed, if the study was not a randomized control trial, or if the dry needling was not used as an intervention. A total of 4 articles met the criteria for inclusion in this appraisal. **Evidence of Quality Assessment:** Articles were assessed using the Physiotherapy Evidence Database (PEDro Scale). **Clinical Bottom Line:** Dry needling was found to be effective in treating tension headache symptoms. It was also found to be a swift and economical option for treating chronically affected patients, although there was the expressed concern that it might not be an option for patients who have a fear of needles.

FROZEN SHOULDER IN FEMALE HIGH SCHOOL SOCCER PLAYER: A LEVEL 3 CASE STUDY

Presenter(s): Kunz, Marissa, Graduate, Kinesiology and Recreation

Mentor: Dr. Hayley Ericksen

Authorship: Chelsea Kuehner-Boyer, Justin Stanek

Background: Adhesive capsulitis (frozen shoulder) happens when there is a gradual loss of AROM and PROM in the glenohumeral joint, occurs in 2-5% of the general population, and is rare in young, active individuals. Adhesive capsulitis occurs most often in females 40-60 years old. **Patient:** A 17-year-old female soccer player presented to the ATF self-splinting her arm against her body, complaining of shoulder pain. The patient reported falling on her shoulder during a game the night before and feeling a pop, as if her shoulder had shifted forward. She was initially diagnosed with a glenohumeral subluxation and was given a sling. Due to concern, the patient went to urgent care and her x-ray was normal. She wore a sling for two weeks and saw no improvement, so she went to an orthopedic specialist and her MRI came back normal. She wore the sling for a month and began physical therapy at a clinic, but her symptoms worsened, she lost most shoulder motion and the pain increased. Six weeks after the initial injury, she was diagnosed with adhesive capsulitis. **Treatment:** The orthopedic surgeon performed a manipulation under anesthesia, which improved the patient's range of motion (ROM). Eight weeks after the initial injury, the patient began rehabilitation focusing on ROM, shoulder strengthening, soft tissue mobilization, and cryotherapy. The patient attended all sessions and completed exercises 5 days per week for 2 months. After week 16, the patient saw major improvements and was ready to return to play. **Outcomes:** The QuickDASH measure was used to track the patient's function throughout rehabilitation. For the first 2 weeks of rehabilitation, the patient's function worsened. By week 6, there was significant functional improvement. Between weeks 2 and 8, pain reduced from 8/10 to 0/10. As the patient progressed through rehabilitation, her ability to complete daily activities such as showering and dressing improved. **Conclusions:** This was an atypical patient and presentation of adhesive capsulitis. An accurate diagnosis was delayed, which may have contributed to the extended rehabilitation. Once diagnosed, pain and ROM improved with rehabilitation and full RTP was achieved 16 weeks after the initial injury. Adhesive capsulitis is not a very common condition seen in young athletes due to their age and activity level. It's important to know and understand the signs and symptoms to make a proper diagnosis and not rule out a condition because the patient is atypical.

LANDING TECHNIQUES AND RISK FACTORS FOR ACL INJURY IN VOLLEYBALL: A CRITICALLY APPRAISED TOPIC

Presenter(s): Larson, Alivia, Graduate, Kinesiology and Recreation

Mentor: Dr. Hayley Ericksen

Authorship: Chelsea Kuehner-Boyer, Justin Stanek

Context: Non-contact anterior cruciate ligament (ACL) injuries are common in females participating in athletics. Volleyball's unpredictable movements of cutting, planting, single-leg landing (SLL) instead of double-leg landing (DLL), trunk position and mid-air twisting can increase risk of ACL injury. Clinical questions: which type of landing technique and/or trunk variation could place volleyball athletes at increased risk of ACL injury? **Methods:** The following keywords were used to search in November 2024: volleyball, landing, and ACL. Studies published between 2014-2024, in English, investigating kinematic and kinetic variables associated with ACL injury risk in jump-landings during a volleyball task were included. Studies were excluded if they studied populations over 17 years old, and did not include SLL, DLL, or trunk rotation during landings. The outcome variables of interest included: vertical ground reaction force and trunk, hip, knee and ankle biomechanics during a volleyball jump-landing task. Three total crossover studies (Zinger et al. (90%), Xu et al. (68%), Zahradnik et al. (86%)) were included and appraised with Strength of Reporting of Observational Studies in Epidemiology (STROBE). **Results:** Zinger, et al. found DLL to be a safer landing style compared to SLL because of the increase in hip and knee flexion and ankle plantarflexion in volleyball athletes. Xu, et al. found when volleyball athletes perform SLL they presented with smaller flexion angles of the knee and hip, increased joint moment, and increased vGRF. Zahradnik, et al. found the associated risk factors of non-contact ACL injury appeared to be related to the tilt of the arms and accompanying trunk tilt during blocking tasks. Trunk tilt led to decreased knee flexion, increased vGRF, and led the trunk towards the right lower limb. **Conclusion:** The studies included in this review found a landing technique that includes SLL, decreased ankle plantarflexion, knee and hip flexion angles, and a trunk tilt could place volleyball athletes at an increased risk of ACL injury. ATs should evaluate volleyball athletes' jump-landing to identify high-risk landing patterns and work with coaches in training athletes to DLL and swing block with proper form. ATs should work with strength and conditioning coaches to implement balance/stabilization exercises so that if a SLL is unavoidable, the risk of knee injury can be minimized. Regardless of the play, volleyball athletes should prioritize landing with a straight trunk and a higher knee flexion angle to minimize the risk of SLLs which in turn could increase the risk of ACL injury.

THE EFFECTS OF BLOOD FLOW RESTRICTION ON ATHLETES DURING REHABILITATION: A CRITICALLY APPRAISED TOPIC

Presenter(s):   Lietz, Kaila, Graduate, Kinesiology and Recreation

Mentor: Dr. Chelsea Kuehner-Boyer

Authorship: Marissa Kunz, Kaila Lietz

Clinical Scenario: Blood flow restriction (BFR) was discovered in 1966 by Dr. Yoshiaki Sato. BFR uses a cuff to create a hypoxic environment in a limb, which is purported to mimic the effects of a high-intensity exercise without the same stress placed on the tissues. This Critically Appraised Topic (CAT) sought to identify and analyze the most clinically relevant published evidence on how BFR affects rehabilitation in athletes and to provide athletic trainers with a clear and comprehensive synthesis of the best available evidence and practice recommendations. **Focused Clinical Question**: Does blood flow restriction aid in the rehabilitation of athletes? **Search Strategy**: An electronic search was completed in the fall of 2023 of the Consortium of Academic Research Libraries I-Share Library system, which includes the databases of 89 libraries from colleges and universities throughout the state of Illinois. The search terms and Boolean phrases used were "blood flow restriction" AND "rehabilitation" AND "athletes." Article inclusion criteria included English language, articles published between 2018-2023, and an athletic population of interest. Articles were excluded if they were not peer-reviewed and if the study was not focused on blood flow restriction interventions. The initial search returned 73 studies, following review 6 articles were retained for inclusion in the critical appraisal. **Evidence Quality Assessment**: Studies were critically appraised using either the PEDro Scale, the JBI Checklist for Case Reports, or the JBI checklist for Text and Opinion Papers depending on the type of study being evaluated. **Results of Summary of Search**: All six articles included in this CAT agreed that BFR has a positive effect on the rehabilitation of athletes when paired with rehabilitative exercises. Five studies analyzed the effects of BFR on pain in patients during rehabilitation and found that BFR reduces pain throughout the rehabilitation process. Three studies analyzed the effect of BFR on muscle strength and hypotrophy following injury and agreed that the addition of BFR to a standard rehabilitation plan can improve strength and reduce hypertrophy following injury. **Clinical Bottom Line**: Studies showed that BFR is effective, but not when used in isolation. In order for BFR to be effective it must be used in conjunction with traditional rehabilitation. The studies found that when paired with rehabilitation BFR allows injured athletes to have the benefits of high-intensity exercise without the risk of using heavy loads and leads to increased strength, function, and hypertrophy.

A GROUNDED THEORY OF PRIORITIZATION AMONG SCHOOL NURSES

Presenter(s):   Calvillo, Melissa, Graduate, Nursing

Mentor: Dr. Susana Calderon

Authorship: Melissa Calvillo, Susana Calderon, Cherrill Stockmann, Sheryl Henry, Maureen Rabbitte

School nurses balance multiple competing demands to maintain or improve health and safety. While the School Nursing Practice Framework™ describes practice activities, it does not address how the nurse might prioritize activities to achieve desired outcomes. The purpose of this study was to create a theory of prioritization among school nurses in the United States. Twenty-nine Midwestern school nurses participated in one-hour semi-structured interviews. Grounded theory was used to create a theory of prioritization among school nurses. The central categories of prioritization are external requirements and expectations; consistent resources; autonomy; perceived high volume and acuity of work; being misunderstood; deadlines; presence; intrinsic motivation; the nursing process; experience over time; the processes of triage, adaptation, and advocacy; and efficacy. The desired outcome of effective prioritization is a safe and healthy school community.

PHYSICS

COMPUTATIONAL MODEL OF SPREADING DEPOLARIZATION IN LARVAL FRUIT FLY BRAINS

Presenter(s):   Lamphere, Daniel, Graduate, Physics

Mentor: Dr. Allison Harris

Co-Mentor: Dr. Wolfgang Stein

Authorship: Daniel Lamphere, Wolfgang Stein, Allison Harris

Spreading Depolarization (SD) is a marked propagation of neuronal inactivity that spreads across large brain regions. This phenomenon is implicated in several neurological diseases including migraine, ischemia, traumatic brain injury, and stroke. However, presently, the exact cause of how SD is initiated is unknown.

SD is not only exhibited in humans but also in insects, such as the fruit fly *Drosophila melanogaster*. A simple method of inducing SD in fruit flies is by reducing their body temperature to the critical thermal minimum (CT_{min}). This temperature varies between different species of fruit flies but ranges from 10°C to -3°C in adult flies. Once a fly reaches its CT_{min}, the fly enters a chill coma state that has been correlated with SD events. Our group has recently shown that cold-induced SD events occur at all stages of the fruit fly life cycle, including its larval stages. Additionally, despite obvious physiological and structural differences in their nervous systems, the SD events within adults and larvae are characteristically similar.

One particularly striking difference between adult and larval flies is the number of neurons, with the first instar larvae having two orders of magnitude fewer than adults. Yet, both developmental stages show cold-induced SD, suggesting that SD is caused by common fundamental mechanisms. We aim to understand these mechanisms by developing a neuronal model of the first instar that accounts for all 3000 neurons present within the first instar. Such a model may help elucidate temperature induced SD events. This insight could be further extrapolated to other SD events induced by different phenomena.

We aim to develop this model using the Hodgkin-Huxley model as a basis. As we develop this model, we plan to focus on the explicit temperature dependence of ionic channels as well as the extracellular ion diffusion that is characteristic of SD. The results of this model will be used in conjunction with experimental data to better understand the role of neuronal excitability in inducing SD.

TRANSNATIONAL JUSTICE: THE FLUIDITY OF STRUGGLE WITHIN THE GLOBAL BLACK BLACK BODY

Presenter(s):   Benson, Jazmine, Undergraduate, Politics and Government

Mentor: Dr. Noha Shawki

Authorship: Jazmine Benson

Black global inequality is a recurring and prevalent theme within the international community, stemming from the consequences of colonialist actions. Global transnational movements have the capability to create a spectrum of outcomes, from the spur of radical change, to socio political unrest. This research project focuses on the internationalism of Black transnational movements, specifically highlighting the Black Lives Matter (BLM) movement and its spread beyond borders. Considering the popularity of the BLM movement and the era that hosted its most prominent work, the influence and importance of COVID-19 in these transnational movements was not ignored. In conjunction with highlighting the clear inequities faced by Black individuals and individuals of color, COVID-19 increased the importance of social media and internet in the growth of transnational movements, as many individuals exposed themselves newly to the reality of racial disadvantage. In addition, the continued conversations about reparations on an international scale set the stage for potential opportunities for Black individuals disadvantaged by the class-based discrimination focused on race. This paper serves as commentary on the postcolonial themes of Black transnational movements, further highlighting the sustaining economic, health and racial injustice faced by Black individuals regardless of nationality or country of origin.

PSYCHOLOGY

REDUCING SELF-STIGMA: THE CATALYZING INFLUENCE OF SELF-CONCEPT CLARITY?

Presenter(s): Adleman, Elise, Undergraduate, Psychology

Herrmann, Jake, Undergraduate, Psychology

Hintz, Ashley, Undergraduate, Psychology

Williams, Sarah, Undergraduate, Psychology

Sooby, Matthew, Graduate, Psychology

Mentor: Dr. Daniel Lannin

Authorship: Daniel Lannin, Elise Adleman, Jake Herrmann, Ashley Hintz, Sarah Williams, Matthew Sooby, Andrew Seidman

Greater self-concept clarity strengthened the negative association between self-stigma and self-empowerment processes—self-affirmation, self-compassion, and personal growth initiative. Interestingly, at lower levels of self-concept clarity, self-affirmation was associated with increased self-stigma. Interventions to reduce self-stigma should consider individual differences in self-concept clarity when applying self-empowerment strategies.

EXAMINATION OF MOOD CONGRUENT MUSIC LISTENING FOR SADNESS AND ANXIETY

Presenter(s):   Budik, Emily, Graduate, Psychology

Dade, Quinton, Undergraduate, Psychology

Fournier, Ava, Undergraduate, Psychology

Dasovic-Walker, Anna, Undergraduate, Psychology

Mentor: Dr. Jeffrey Kahn

Authorship: Jeffrey H. Kahn, Emily P. Budik, Quinton Dade, Ava Fournier, and Anna Dasovic-Walker

Listening to sad music is a common regulation strategy for people experiencing sadness, perhaps because mood-congruent music helps with emotional recovery (Hunter et al., 2011; O'Malley et al., 2016). Would the mood-congruence effect extend to other unpleasant emotions such as anxiety? People experiencing depression may enjoy sad music because of its slow, relaxing qualities (Yoon et al., 2020); thus, when feeling anxious, people might prefer slow and predictable music to fast, discordant, and unpredictable music (which would seem to characterize anxiety). Our lab experiment tested this hypothesis. 117 college students have completed the study. Participants came individually to the lab. After consenting, participants answered surveys for demographics and baseline mood. Participants then listened to fifteen 30 s mood-inducing sound clips each with identical accompanying questionnaires that rated the participants' emotional experience, and whether they would want to listen to the clip while in a particular mood. The participants were then debriefed and dismissed. Based on 1,755 ratings of sound clips (N × 15) collected, correlations at the level of the sound clip (unadjusted for nesting within participant) indicate that when participants are feeling sad, they want to listen to audio that sounds sad, $r = .58$. There was no such correlation between participants feeling anxious and wanting to listen to audio that sounds anxious, $r = -.14$. Multilevel regressions that accounted for nesting of audio within participants indicated that, when one feels sad, they would be significantly more likely to listed to sad-sounding audio ($b = 0.62$) and less likely to listen to anxious-sounding audio ($b = -0.22$); the same pattern was found for when one is feeling anxious ($b = 0.28$ for sad-sounding audio, $b = -0.17$ for anxious-sounding audio). This experimental study demonstrated that when people feel sad, they want to listen to sadder songs. However, songs that sound more anxious are less palatable for people when they are feeling anxious, suggesting that the mood-congruency effect does not extend from sadness to anxiety. Desire for relaxation might instead dictate the music choices among those feeling anxious (see Saarikallio, 2008). This poster will expand on these results and present implications for theory and practice.

SUPERVISORS' RESPONSES TO MICROAGGRESSIONS ENACTED TOWARDS GRADUATE STUDENTS OF COLOR

Presenter(s): Concepción Cabán, Lourdes, Graduate, Psychology

Goins, Rochelle, Graduate, Psychology

Osman, Farhia, Graduate, Psychology

Mentor: Dr. Brea Banks

Authorship: Lourdes D. Concepción Cabán, Rochelle E. Goins, Farhia A. Osman, Brea M. Banks, Tyra M. Jackson, Arielle N. Flint, Keeley Hynes, Kierra R. Peterson

Graduate clinicians holding marginalized identities have faced dismissal or invalidation from supervisors when disclosing microaggressions, however, there is no research examining supervisors' response to the disclosure in mental health service programs (Bautista-Biddle, et al., 2021). Thus, the current study used qualitative methods to learn about graduate trainees of color's experiences discussing these transgressions in supervision. Guided by a Critical Race Theory framework, the study also examined the experiences with racism that intersected with other identities (e.g., gender, sexuality, ability; Solórzano & Yosso, 2002).

We recruited 10 graduate students of color from mental health service fields (e.g., school, counseling, and clinical psychology). Participants engaged in 30-minute interviews with the research team, during which they discussed their experiences with disclosing microaggressions to supervisors in their program. Using thematic analysis, two members developed a codebook identifying the themes and systematically coded each interview according to the definitions and achieved an ICR of 100%.

Four major themes emerged from data analysis to explain participants' experiences with microaggressions and disclosing microaggressions: (a) emotional reactions, (b) types of microaggressions, (c) climate, and (d) behaviors. Two emergent themes explained the responses to participants' disclosure of microaggresive experiences: (a) institutional feedback, and (b) faculty responses.

The qualitative nature of the study allowed participants to share their own counterstories. As a large part of the study examined program climate and retention, the findings may inform the efforts university graduate programs, internship programs, and other trainers of mental health service provision students.

DIFFERENTIAL PREDICTION OF PERSONALITY IN HIGH-STAKES CONTEXTS

Presenter(s):   Cannon, Kara, Graduate, Psychology

Mentor: Dr. Dan Ispas

Authorship: Kara Cannon, Alexandra Ilie, Dan Ispas, Drago Iliescu, Kevin Askew

We investigate the differential prediction of personality (big five) by age and gender using job performance data collected 1 year later. Data was collected from 1009 participants in a high-stakes context (as part of job applications). Our results show limited evidence of differential prediction.

EXAMINING THE EFFECTS OF WRITING TOOLS ON WRITTEN EXPRESSION PERFORMANCE

Presenter(s):   Guo, Stephanie, Graduate, Psychology

Mentor: Dr. Gary Cates

Writing is a crucial skill for academic functioning. Despite the importance of utilizing effective writing instruction and intervention strategies to improve students' written expression, research on writing interventions for students in grades K – 12 is limited. The current study aimed to examine if students' writing performance improves as a factor of different writing tools used. Experimental analyses were conducted with two participants, one in 3rd grade and one in 5th grade, referred for writing concerns and reported physical discomfort when writing. The experimental analysis protocol consisted of seven conditions in which each participant was asked to type, draw, or use a specific tool to write a response to a story starter prompt from the AIMSweb academic progress monitoring system. Writing tools used were a #2 wooden pencil, a wooden pencil of increased size, a wooden pencil of increased size with a pencil grip made with rubber bands, a #2 wooden pencil with a soft pencil grip, and a ClearPoint mechanical pencil. Data was collected on the participants' number of Correct Writing Sequences (CWS) and corresponding percentile ranks provided by AIMSweb, self-reported hand discomfort using a 1 – 5 scale, and frequency of verbal and physical reports of hand discomfort. Results revealed that writing performance improved relative to baseline depending on tool used for one participant but not for the other participant. Self-reported hand discomfort varied across conditions for both participants. Taken together, the results indicated that using different writing tools may have an effect on writing performance and writing comfort, though these effects may differ between individuals.

FAMILY REFLECTIONS: MATERNAL IMPACT ON BODY IMAGE AND SIBLING CLOSENESS

Presenter(s): Kolze, Alannah, Undergraduate, Psychology

Mentor: Dr. Suejung Han

Purpose

Maternal influences on their children's body image through comments on weight and body shapes are well- established (Handford, Rapee, Fardouly, 2017), but the mechanisms through which such an influence occurs have not been sufficiently examined. Studies have shown that sibling relationships and attachment also impact a person's psychological outcomes (Dahill et al., 2023). I propose that mothers' behaviors— such as making comments about body shape, weight, or eating habits and pressuring children to achieve certain appearances—may negatively affect body esteem by increasing bodily comparison with siblings. Specifically, it is hypothesized that mothers' body- and eating-related comments are associated with adult children's body esteem negatively through bodily comparisons with siblings.

Procedure

Participants were 329 undergraduates (mean age = 19.83, SD = 6.34, 84% Whites, 87% female) recruited through the research participation management system of SONA for course credits. Participants completed an online survey that included modified items from the Sociocultural Attitudes Towards Appearance Questionnaire (SATAQ) (Thompson et al., 2000), modified items from the Upward Physical Appearance Comparisons (UPACS) (O'Brien et al., 2009), and the Body-Esteem Scale for Adolescents and Adults (BESAA) (Mendelson, White, & Mendelson, 1997).

Results

A path analysis was conducted using SPSS PROCESS MACRO (Hayes, 2022), with maternal comments as the IV, body esteem as the DV, and bodily comparison with siblings as the mediator. The mediation model was supported, R=.56, R^2=.31, F (2, 283) = 20.93, p<.001. The paths were significant in the expected direction. The indirect effect was significant, β = 0.0030 [-.0055, -.0012]. The direct effect was also significant, β = -.03, p<.001, indicating partial
mediation.

Conclusion

Maternal comments on body shape, weight, and eating behaviors may contribute to negative body image or body dissatisfaction by promoting bodily social comparisons with one's siblings. These results highlight the complexities of sibling dynamics and the role of maternal influences in shaping relationships and body esteem. However, the partial mediation and the small effect size of the indirect effect suggest the existence of additional mediating mechanisms that warrant future studies.

THE IMPACT OF DESIRE DISCREPENCIES ON RELATIONSHIP SATISFACTION

Presenter(s):   Maxwell, Zachary, Undergraduate, Psychology

Mentor: Dr. Suejung Han

Authorship: Suejung Han, Zachary Maxwell

Purpose: Sexual desire discrepancy (SDD) refers to the difference of sex drive between individuals in a relationship (Spector, 1996). Affectionate desire discrepancy (ADD) refers to the difference in affectionate desire, such as touching, hugging, or kissing, between individuals in a relationship (Jakubiak, 2021). This study aims to examine the relationship between SDD, ADD, and relationship satisfaction (RS) among college-aged populations. This study also explores college students' strategies for addressing SDD and ADD.

Research has shown that SDD can impact RS between partners (Mark, 2012). Many strategies have been suggested for dealing with SDD (Clark, et al., 2023; Vowels & Mark, 2018) such as communicating sexual desires and talking through discrepancies. However, how college students address them has not been examined sufficiently. College students may provide unique insight into the formation of long-term romantic-relationships during emerging adulthood. I hypothesize (1a) that SDD is associated with RS negatively only when ADD is also high; (1b) that SDD is associated with RS negatively only when communication strategies for SDD are not used. I will also explore the question of (2a) what strategies college-aged individuals use to address SDD and ADD.

Procedure: Participants will be undergraduates enrolled at a Midwestern University, recruited through the psychology department's SONA system for research participation credits. Upon the university's IRB approval, data collection will take place in January and February of 2025. Data analysis will follow in March of 2025 so that data can be presented at the MPA in April 2025.

The online survey of the study will include items for SDD and ADD following Bridges & Horne (2007), the Dyadic Adjustment Scale (Spanier, 1976) for RS, and three short open-ended questions on strategies for handling SDD and ADD, following Clark (2023). Moderated regression analyses will be conducted to test the hypotheses. A theme analysis will be conducted for the exploratory question.

Expected Implications:
With SDD and ADD being a prevalent issue amongst relationships, this study seeks to shed insight on whether there is a correlation between SDD/ ADD and RS in college-aged subjects, as well as identify strategies used by individuals in emerging adulthood (ages 18-29). The results of the study could offer college students practical strategies for enhancing their relationship satisfaction.

APPLICATION OF IDENTITY PLAY ONTO TABLETOP ROLEPLAYING GAMES

Presenter(s):   Osman, Farhia, Graduate, Psychology

Mentor: Dr. Eric Wesselmann

This study plans to understand the tabletop roleplaying game (TTRPG) players in their motivations of play, their identification with their character(s), and the individual differences in their personality. Additionally, the research is interested in exploring the practice of roleplaying a character of a different gender than one's own.

There is an existing contention within the game space on how to define roleplaying games (RPGs) as they each have their own purposes of playing (e.g., shared storytelling, simulation). Yet, regardless of form (e.g., TTRPGs; digital video games; live action roleplaying), a shared feature is the player-controlled characters (Bowman, 2010). Although TTRPGs, such as Dungeons & Dragons (D&D), are the predecessor of RPG video games, most research on the individual differences of RPG players has focused on video gamers (Curran, 2011; Yee, 2006). Previous research reported openness to experience being significantly correlated to identification and motivations for playing, thus, this research hypothesizes the findings would apply to a TTRPG player audience specifically (Curran, 2011).

Participants were TTRPG players of at least 18 years old recruited and they completed online survey measures of motivations, identification, and openness to experience facets (Demetrovics, et al., 2011; Looy, et al., 2010; Johnson, 2014).

Bivarate regression analyses will be conducted to assess openness to experience as a predictor of motivation to play and avatar identification. Additionally, multiple regression models will be used to explore the six facets of openness as predictors of motivation and identification. And lastly, an independent samples t-test will be used to explore potential differences of TTRPG players who have played a gender different than their own and those who have not.

The study plans to bridge the gaps of established research avenues of cosplay, video games, and TTRPGs. It will open future research avenues of play and provide further exploration of openness to experience at a facet level.

REPLICATION STUDY ON OSTRACISM AND SELF-ISOLATION THE ROLE OF SHAME AND GUILT RESTRICTING TIMEFRAME

Presenter(s):   Rand, Stuart, Graduate, Psychology
                Bat-Ireedui, Munkhjin, Graduate, Psychology

Mentor: Dr. Eric Wesselmann

Authorship: Stuart Rand, Munkhjin Bat-Ireedui, Zhi Quan Lim, Eric Wesselmann,
                Noah Kalmes, Jackson Ahrens

Problem or Purpose

Ostracism is the experience of being ignored and excluded that threatens basic psychological needs (e.g., belonging, self-esteem; Williams, 2009). Ostracism can lead to various behavioral responses, including individuals seeking to isolate themselves from others to avoid future experiences of being ostracized. We conceptually replicate previous studies on preference for solitude after experiencing ostracism (Ren et al., 2016; 2021). Lim (2024) further explored the

roles that shame, and guilt may have on solitude-seeking and found mixed results; we designed this study to address previous methodological limitations that may have obfuscated potential

experimental effects. We hypothesize that reflecting on an ostracism experience will display increased solitude-seeking, alongside feelings of shame and guilt. We hypothesize that shame will mediate the relation between ostracism and solitude-seeking.

Procedure

Participants (minimum target N =71, current N = 124) will write about previous experiences. Participants either write about the last time they ate breakfast (control group) or about a time

they had been ostracized within the past five years (experimental group). Lim (2024) found that participants varied widely in the timeframe for events that participants chose to recall (some

chose a childhood memory, others a recent memory). Though many studies using this

paradigm do not find timeframe to be an issue, we elected to restrict the timeframe such that it would involve an ostracism memory tied to their lives as emerging adults. Participants will then complete measures of guilt, shame, and preferences for solitude.

Results

We will conduct a t-test to find expected results that participants who reflect on an ostracism experience will score higher on the solitude scale than participants in the control group. We expect participants' feelings of shame and guilt to follow a similar pattern. We also predicted that participants with higher solitude seeking scores will display increased motivation to seek

solitude in the future. Based on previous research, we predict shame will mediate the relation between recalling ostracism and a preference for solitude using the Hayes PROCESS macro.

Additionally, we will explore if guilt (a co-morbid emotion with shame) has a mediating role through bootstrapping.

Conclusions and Implications

The study is expected to be completed by February of 2025. The results of this study have implications towards the responses towards ostracism, and the implications of recall towards facilitating the feelings from an ostracism experience. The study has implications for how timeframe affects the relationship between ostracism and solitude-seeking.

COMMUNITY OUTREACH: PARENTAL ENGAGEMENT IN STEAM ACTIVITIES AND DISCUSSION WITH CHILDREN

Presenter(s): Rand, Stuart, Graduate, Psychology

Mentors: Dr. Gregory Braswell

Co-Mentor: Dr. Jordan Arellanes

Authorship: Stuart Rand, Gregory Braswell, Jordan Arellanes

Problem and Purpose

Children's museums are designed to promote children's interests and curiosity, and have found to be effective in communicating STEAM topics (Avraamidou & Osborne, 2009; Wilson-Lopez & Gregory, 2015). STEAM emphasizes the education of science, technology, engineering, art, and math in early childhood, an adaptation to STEM emphasizing creative learning encouraging children to lead their own education. We worked alongside a local children's museum in an outreach program promoting early STEAM education and parental participation. The study focuses on the ability to promote confidence in parents to engage and the facilitation of STEAM learning in the home. We hypothesize that the parents will display increased confidence in engaging with their children in STEAM activities through perceived benefits their children received from the outreach. We hypothesize that parents' own perceptions of STEAM and education will influence confidence to engage, and that the more that parents' feelings of support from the museum will mediate this relationship.

Procedures

Participants consisted of parents of children within local childcare centers that participated in the children's museum outreach. The study contained two parts, separately collected, a quantitative survey (minimum target N = 69, current N = 86) where participants were asked to assess their perception of the effectiveness and benefits from the outreach towards their child's STEAM education and parents' confidence to participate in the learning. The second part consisted of short interviews with parents (current N = 79) on their perspective towards educating children and effectiveness of at home activities in discussing STEAM with their children.

Results

Data is currently being collected and is expected to be completed by February of 2025. Multiple regressions will be conducted on survey results to observe expected results of increased parental confidence based on increased benefits towards children from outreach. Using multiple

regression, we expect increased confidence when parents have higher levels of education and interest in STEAM with support from the museum being a mediator using Hayes PROCESS. Interviews will be coded for aspects of at-home activities that promote effective parent-child engagement.

Conclusions and Implications

The study displays the effectiveness of community organizations towards promoting effective learning, and effective ways to promote increased parental engagement within their children's education. The results may help to develop effective ways to plan further programs that emphasize ways to increase parental interest and confidence to engage with their children, and activities that promote engagement and effective learning within the home.

AI MENTAL HEALTH CHATBOTS: ARE WE READY TO TRUST THEM?

Presenter(s):   Rogers, Lauren, Graduate, Psychology

Igoe, Emily, Undergraduate, Psychology

Barrios, Jerania, Undergraduate, Psychology

Kolze, Alannah, Undergraduate, Psychology

Mentor: Dr. Dan Lannin

Authorship: Dan Lannin, Emily Igoe, Lauren Rogers, Jerania Barrios, Alannah Kolze, Michael Barrowclough, David Vogel, Shengtian Wu, Fawzie Khan

Purpose

Demand for mental health treatment continues to outpace the availability of providers (Stringer, 2023). This imbalance leaves many people without timely or sufficient access to care, underscoring the need for innovative solutions. Chatbots could provide a supplementary resource for addressing mental health challenges, especially in underserved or resource-constrained environments (Molli, 2022); however, perceptions of these tools remain unclear (Park et al., 2024). Thus, understanding perceived barriers to using AI chatbots for mental health support is critical for developing appropriate treatments (Koulouri et al., 2022). Therefore, this study aims to assess perceptions of AI mental health chatbots compared to human counselors, identifying potential barriers and opportunities for integrating AI into mental health care.

Procedure

This cross-sectional study surveyed 350 undergraduates, gathering perceptions of human counselors and AI chatbots. Participants completed adapted measures of stigma, disclosure risks/benefits, attitudes, help- seeking intentions, and prior AI experiences. Preferences for combinations of human and AI support (e.g., Human Only, AI Only, Human Primary with AI as Needed, AI Primary with Human as Needed, No Help) were evaluated using Best-Worst scaling procedures.

Results

Most students (62%) were unfamiliar with the existence of AI mental health chatbots, with only 6% having used one for mental health support. Just 14% believed AI could provide care equivalent to human counselors.

Paired t-tests indicated students viewed AI chatbots more negatively than human counselors, with less disclosure benefits, higher self-stigma, worse attitudes, and lower help-seeking intentions (ps < .001); disclosure risks were not significantly different (p = .36).

A Repeated-Measure ANOVA with Sidak correction for multiple comparisons revealed that students equally preferred Human Only and Human Primary with AI as Needed health care, followed by AI Primary with Human as Needed, AI Only, and No Help. All differences were statistically significant (p < .001), except for null differences between Human Only and Human Primary with AI as Needed (p = .38).

Conclusions

Most students had limited experience with AI mental health chatbots and generally held more negative perceptions of them compared to human counselors. However, the finding that a human-primary model supplemented by AI was equally preferred to a human-only model suggests that AI may potentially be used as a complement to human care. Increasing AI literacy and addressing concerns about trust and effectiveness may be essential for integrating AI into mental health services and expanding access.

FUNCTIONAL BEHAVIOR ASSESSMENT INFORMED CONSULTEE-CENTERED CONSULTATION ON BEHAVIORAL INTERVENTION

Presenter(s): Sizemore, Morgan, Undergraduate, Psychology
Carter, Mackinze, Undergraduate, Psychology
Whitehead, Kayden, Undergraduate, Psychology
Dinnsen, Lauren, Undergraduate, Psychology
Hughes, Tamia, Graduate, Psychology
Toney, Taylor, Undergraduate, Psychology
Lafferty, Gina, Undergraduate, Psychology
Guo, Stephanie, Graduate, Psychology

Mentor: Dr. Shengtian Wu

Authorship: Morgan Sizemore, Mackinze Carter, Kayden Whitehead, Lauren Dinnsen, Shengtian Wu, Tamia Hughes, Gina Lafferty, Natalie Picazo, Taylor Toney, Stephanie Guo

Problem:

School consultation is defined as a psychological method used for implementing techniques to help a consultee (e.g., a teacher) who intends to help a client (e.g., a student) with concerning behaviors (King et al, 2023). It helps consultants (e.g., school psychologists) identify underlying causes of student concerns and develop strategies for teachers who will implement them for the students. The need for consultation is highlighted by the interference that student concerns pose toward a teacher's classroom structure, which impacts student productivity and overall performance. The current study measured the effect of school consultation in providing performance improvement in student behaviors, done through the implementation of the interventions developed through consultation.

Procedure:

This study involves a pair of a teacher and a student observed in an elementary school classroom setting. The dependent variable is the student's on-task behaviors, which can be defined as behaviors related to ongoing academic tasks, and the teacher's implementation fidelity, which refers to how accurately the intervention is implemented as designed. To identify student behaviors, researchers conducted teacher interviews and classroom observations, which were used to design interventions to improve the child's behaviors. Teacher implementation fidelity was assessed by calculating the percentage of intervention components correctly implemented. An ABC single case design was used, starting with a baseline phase where dependent variables are measured without intervention, followed by the first intervention phase where the teacher implemented good behavior game intervention. The second intervention phase involved teacher-developed intervention that involves token economy and response cost.

Results:

The result indicated that on-task behaviors under the first intervention phase improved compared to the baseline. The behavior further improved in the second intervention phase relative to the first intervention phase. The teacher's implementation fidelity was also improved in the second intervention phase relative to the first intervention phase.

Implication:

With the ever-changing student dynamic in schools around the nation, many concerns are present such as, productivity, engagement, classroom performance, and declines in teacher motivation. School consultation addresses these concerns by including teachers in the intervention development process, producing improvement in both student behavior and teacher implementation fidelity, often leading to higher rates of acceptability for the proposed intervention. Tailoring interventions to the student not only improves behavioral concerns, but whole classroom engagement and performance collectively. Looking towards the future, discoveries of new interventions will further improve the consultation process.

THE CHOICE PROCESS OF A HIGHER EDUCATION: LATINE COLLEGE WOMEN AND THE EFFECTS OF MARIANISMO

Presenter(s):   Trujillo, Karina, Graduate, Psychology

Ugalde-Rivero, Ariadna, Undergraduate, Psychology

Mentor: Dr. Jordan Arellanes

Latine women have significantly increased their enrollment in higher educational institutions throughout recent years. Despite this progress, Latine students are disproportionately more likely to drop out of college (U.S. Department of Education, 2021). This has been called the Latine Educational Crisis, whereby progress is being made, but there is ample room for improvement (Capers, 2019). Notably, Latine women outperform their male counterparts in terms of enrollment rates and degree completion (Loya & Oseguera, 2015). This warrants further investigation into how the strengths of Latine women may be utilized to support Latine college students at large. Within the Latine community, certain values are attributed to the cultural and gender roles Latine women are expected to follow to contribute to their community; The most prominent is marianismo (Stevens, 1973). Castillo and colleagues (2010), developed the Marianismo Belief Scale centered around five pillars: Family, Virtuous and Chaste, Subordinate to Others, Self-Silencing to Maintain Harmony, and Spiritual. This study focuses on how the role of marianismo might affect the best decisions for Latine women regarding which institution to attend. The purpose of this study is to 1) provide insight into how Latine women make a vital decision to attend college and 2) how marianismo may limit or act as a protective factor.

NATURAL VS. ARTIFICIAL THREATENING SOUNDS ON STRESS RECOVERY

Presenter(s):   Walis, Emma, Undergraduate, Psychology

Mentor: Dr. Jeffrey Kahn

Authorship: Emma Walis, Jeffrey Kahn

Of the many methods used to reduce stress after a stressful event, listening to natural sounds aids recovery to a greater extent than artificial sounds (Alvarsson et al., 2010). Natural sounds influence restoration through mood regulation, stress reduction, attention, and health regulation (Benfield et al., 2014). However, some naturally occurring and artificial sounds imply threat (e.g., animal screams, traffic) which can affect brain responsiveness (Erlich et al., 2013). We predicted that non-threatening natural sounds would reduce stress more than artificial sounds. We extended this hypothesis in a new direction with threatening natural and artificial sounds.

College students (N = 86) individually completed a questionnaire within a lab setting. Participants recorded their current emotions (Russell et al., 1989), experienced a brief stress- inducing task (Bostan, 2021), and rated their momentary arousal and valence on a 1–9 Likert scale as a pre-sound measure. They then listened to a 2 min sound clip of one of four randomly assigned clips. These sounds were organized into a 2x2 design with threatening or nonthreatening and natural or artificial categories (i.e., creek, white noise, traffic, and animal screams). Subsequently, they reflected on their post-sound perceptions of valence and arousal and overall stress levels.

Two-by-two repeated measures ANOVAs addressed the influence of threat level and source on stress recovery (valence and arousal) after a stress induction. Participants experienced more of an increase in pleasant affect, $F(1, 49) = 19.37$, $p < .001$ (Fig. 1) and more of decrease in arousal, $F(1, 49) = 4.96$, $p = 0.03$ (Fig. 2) after listening to a non-threatening sound compared to a threatening sound. Source (e.g., natural and artificial) did not impact stress recovery and threat and source did not interact.

Our hypothesis that natural threatening sounds would decrease stress more than artificial threatening sounds was not supported. Perhaps some artificial sounds may be inherently calming and predictable, in contrast to the unpredictable properties of threatening sounds. We found that affect became more positive, and arousal decreased after listening to a low-threat sound regardless of the source. While natural sounds enhance mood recovery to a greater extent than artificial sounds (Benfield et al., 2014), our findings suggest that the threat-level of a sound should be considered independent of source.

ENGAGED AND DISENGAGED COPING: INSIGHTS FROM #METOO TWEETS

Presenter(s): Williams, Sarah, Undergraduate, Psychology
                      Kuhn, Rory, Graduate, Psychology

Mentor: Dr. Kimberly Schneider

Authorship: Sarah Williams, Rory Kuhn

Purpose:

We examined #MeToo tweets to study differences in coping described by harassment targets. Most previous research on coping with harassment has focused on workplace and school settings, where targets frequently report avoidance of perpetrators (Magley, 2002). We examined a range of coping responses, including cognitive engagement (self-blame, relabeling, and appeasement), behavioral engagement (assertion and reporting), cognitive disengagement (detachment, denial, and endurance), and behavioral disengagement (avoidance and seeking social support).

Less is known about coping with harassment in settings outside work or campus contexts. #MeToo tweets described a broader range of settings, including public and social situations. We expected that coping described in tweets would parallel previous workplace harassment research. Reluctance to engage in assertive coping is often based on concerns about retaliation or skepticism about reporting. We examined differences in coping based on setting and harassment type.

Project Methodology:

We gathered #MeToo English language tweets from the 24 hours following the initial use of #MeToo on Twitter (10/15/2017). Three raters content-coded a random 1,000 tweets (> 95% agreement) into coping strategy categories using the Coping with Harassment Questionnaire (Table 1) and based on setting (Table 2) of the disclosed incident.

Results:

Of the 912 tweets that included details of the harassment, most incidents occurred at work (31.9%), school (18.5%), or on the street (14.5%). Harassment type was most frequently unwanted sexual attention (36.2% of incidents), assault (10.7%), or threatening/stalking behaviors (10.7%). We conducted chi-square tests to examine significant differences in coping based on harassment type. Behavioral engagement (i.e., assertiveness) was used significantly more often for those who disclosed unwanted sexual attention and

threats/stalking than for those who disclosed sexual assault or gender harassment (χ2 (4) = 27.77, p < .001). There were not significant differences in other coping strategies across harassment types. Based on setting, there was only a significant difference in behavioral engagement; it was used significantly more often in work, school, and street harassment than in social/dating contexts (χ2 (3) = 16.52, p < .05).

Implications:

Our study of #MeToo tweets illustrated similarities and differences in how harassment targets coped with incidents compared with samples in previous research. Those disclosing harassment or assault using #MeToo were generally more assertive compared to employee samples. This may be a function of the type of incidents disclosed on Twitter. Next steps will include linking descriptions of behaviorally engaged coping behaviors with resolution of the harassment incident linking descriptions of behaviorally engaged coping behaviors with resolution of the harassment incident.

SYSTEMATIC REVIEW OF COLLEGE AND CAREER READINESS PROGRAM CONSTRUCTS FOR STUDENTS WITH DISABILITIES

Presenter(s):   Brobston, Stacy, Graduate, Special Education

Mentor: Dr. Yun-Ching Chung

Authorship: Stacy Brobston, Yun-Ching Chung

Federal laws mandate schools to develop individualized transition plans and set high academic standards to prepare students with disabilities with skills necessary for collage and career. While many schools have developed college and career readiness (CCR) programs to support all students transition to the postsecondary setting, there continues to be a gap in the success rates between students with and without disabilities. In addition, research is unclear on what constructs are essential for students with disabilities. We conducted a systematic literature review to examine studies that evaluated CCR constructs essential for students in high school with disabilities. Twelve studies met the inclusion criteria, including seven quantitative, three qualitative, and two mixed-method studies. We organized the results based on the type of study and then compared the results of the quantitative and qualitative research to each other. Results indicated family involvement, community networking, and teaching of social and communication skills as essential CCR constructs for students with disabilities. Most of the quantitative studies reviewed met the Council for Exceptional Children (CEC) quality indicators with no reservations. The qualitative research studies included met the CEC quality indicators with some reservations. Findings suggest a need for schools to incorporate the essential CCR constructs into their programs, expand their knowledge of community resources, and use quality assessments to identify students' strengths when developing an effective transition plan for college and careers.

PROMOTING STUDENT SUCCESS THROUGH POLICY: APPLYING CULTURALLY RESPONSIVE PRINCIPLES TO TEACHER ADVOCACY

Presenter(s):   Chlada, Anabella, Undergraduate, Special Education

Mentor: Dr. Debbie Shelden

Authorship: Anabella Chlada, Debbie Shelden

As a preservice educator, I am interested in understanding how policy and legislation impact my future students. In this presentation, I will share my learning related to how intersectionality must be addressed in policy initiatives and how educators can advocate for policies–federally but also in their schools–that target inequities in our schools. I will share my learning from Intersectionality in Education and from my participation in the Council for Exceptional Children/Council of Administrators of Special Education (CEC/ CASE) Special Education Legislative Summit and discuss implications, particularly for emerging and new educators.

DIGITAL WRITING IN EARLY CHILDHOOD EDUCATION

Presenter(s): Anderson, Gina, Graduate, Teaching and Learning

Mentor: Dr. Terry Husband

This study is looking at digital writing practices and the impact it may have on students' motivation and pride in their work in early childhood classrooms. The goal of this study is to see if digital writing will increase student motivation and increase students' pride in their work. Participants will be one class of kindergarten students. The participants will be selected based on parent permission and the students' willingness to be included in this study. The results of this study are coming soon.

BEYOND THE CLASSROOM: HOW INFORMAL LEARNING ENVIRONMENTS IMPACT STUDENT LEARNING

Presenter(s): Boudreau, Kendall, Graduate, Teaching and Learning

Mentor: Dr. Anna Smith

As children begin preschool, various techniques, approaches, and environments foster their social, emotional, and academic growth. Preschool aged children need hands-on learning opportunities that are embedded in their communities and immediate environments to support their learning. The purpose of this study is to better understand how informal learning environments support students' learning. To better understand how informal learning environments support student learning, this study immersed children into a learning unit about their local post office, and offered students the opportunity to meet with local postal workers and attend a field trip to the local post office. Small group interviews were conducted with participants, along with observations during free play, gross motor activities, and small group sessions in the classroom. Additionally, a detailed running record and various artifacts were collected during the field trip. Based on the data collected through these methods, the potential impacts on learning include increased dramatic play, expanded vocabulary, enhanced peer collaboration, and a heightened curiosity to learn new information. In addition to this, tentative findings suggest that students feel more connected to their community by making real world connections to new information. Overall, based on these preliminary findings, students need a variety of opportunities and environments to engage on a deeper level through informal learning opportunities to promote their language, social and emotional learning, increase content knowledge and make connections to the world at large.

REDUCING FOREIGN LANGAUGE ANXIETY IN HIGH SCHOOL LANGUAGE LEARNERS DURING PRESENTATIONAL SPEAKING EVENTS

Presenter(s):   Bryk, Alexander, Graduate, Teaching and Learning

Mentor: Dr. Anna Smith

Authorship: Alexander Bryk

In foreign language courses, presentational speaking is often a source of major anxiety for students, who see the task as an upcoming source of negative evaluation (Ansari, 2015). While some students dare to perform the task of speaking a foreign language in front of others in the face of stress and anxiety, teachers have seen others cope with the situation by skipping class on the day of a presentation, asking for an extended deadline at the last minute, requesting to perform their presentation without an audience, or even neglecting to complete any of the work required for the assignment and opting to take a zero for the assignment rather than confront the source of their uneasiness. Naturally, the avoidance of an assignment is concerning for the threat that it poses to a student's academic growth. However, this is a symptom of greater problems, specifically that students do not practice the communication skills required to inform their teacher that they require assistance in order for them to prepare for a presentation or the anxiety management skills required to prepare to perform the task on time and in front of an audience. Based on the American Council on the Teaching of Foreign Languages' World Readiness Standards, many world language classrooms now include a focus on inter- disciplinary knowledge and skills that are transferrable to situations outside the world language classroom. As a course such as the one outlined by Pulker (et al. 2021) demonstrates, the ability to self- advocate, communicate, and problem-solve on one's own is certainly transferrable to situations beyond the world language classroom, and among the many skills that world language instructors would like to see their students develop. By discovering and explicitly teaching strategies to help language learners manage their anxiety, teachers can help students to grow more confident in the language abilities, develop a positive attitude towards their language-learning endeavor, and develop useful skills that they can employ long past the end of their language courses. So far, survey results from students indicate that they are generally confident and have an overall positive attitude towards language learning and speaking in front of others, contingent on their feeling prepared. Therefore, an intervention that successfully prepares students for a presentational speaking event by making them feel confident will likely be effective in helping their proficiency in that setting.

SMALL GROUP WRITING INSTRUCTION

Presenter(s):   Cantrell, Kate, Graduate, Teaching and Learning

Mentor: Dr. Terry Husband

Research question: How can small group instruction be meaningful for all types of writers?

The purpose of this study is to examine small group instruction through skill-based support during writing instruction. Small groups will meet twice a week for 15 minutes during writing workshop over a 6-week period of time. Students will work on a specified writing skill based on their pre-assessment score. These skills include the use of conventions, organization of writing, use of language, or details and ideas. Each small group will have different instructional activities based on the skill. Data will be collected through pre assessment and post assessment rubrics and formative observations.

INSTRUCTIONAL COACH'S IMPACT ON TEACHERS' NEEDS

Presenter(s):   DeBruyne, Brianna, Graduate, Teaching and Learning

Mentor: Dr. Megan Kessler

Teachers continue to have responsibilities and expectations added to their plates, while little to nothing is being taken off. Students are harder to reach, and their attention spans are significantly lower than in years past. How can we, as teachers, compete with the growing list of to-do´s and still implement best practices? How can instructional coaches use coaching cycles to support classroom teachers in their building? Participants in this study include teachers with varying levels of experience. They are 4th-6th grade classroom teachers who participated in a co-planning or full coaching cycle with an instructional coach. Surveys and interviews will be collected at the end of each coaching cycle. Surveys include results on a likert-scale so that results can be quantified and graphed. Teachers expressed gratitude and appreciation for having help in their classrooms, whether it involved planning together or planning, teaching, and assessing together. Surveys showed their instructional coach was helpful and most were able to implement planning and teaching on their own following the coaching cycle. Based on these tentative findings, teachers found that coaching cycles led them to being more confident and prepared for planning future units. Both full coaching cycles and co-planning cycles with an instructional coach were considered to be effective methods for supporting teachers.

THE IMPACT OF INTENSIVE PHONICS INSTRUCTION ON TIER 3 UPPER ELEMENTARY STRUGGLING READERS

Presenter(s): Dorantes, Jeanette, Graduate, Teaching and Learning

Mentor: Dr. Terry Husband

There has been much research on which method is best in teaching children to read. Educators have wondered if it is phonics, whole language, or something different. The majority of this research is focused on primary-grade students who are just beginning to learn to read. The research is not as robust with the older students. What about the upper elementary student who is still struggling with decoding, not just reading comprehension. Donegan and Wanzek (2021) explain that "older struggling readers may demonstrate difficulties in foundational skills such as word reading, or more advanced skills such as comprehension of text, or they may struggle in both domains." (p.1944)

Research shows that students are still struggling with decoding and fluency beyond the primary grades. This is a problem since at this age students are no longer learning to read in class, but they are reading to learn content. According to Boucher et al, 2024, "Students who experience WRD (Word Reading Difficulties) beyond Grades K–2 are doubly disadvantaged: word reading instruction is no longer the primary focus of core classroom instruction (Chall, 1983) and the texts students encounter only increase in difficulty (Leach et al., 2003)" (p.1). These students still need intensive interventions that include phonics. Wanzek et al., (2013) describe reading difficulties in older students, "Other students in Grades
4 and beyond demonstrate reading achievement more than two grades below expectations and are unable to read grade-level text, thus demonstrating more significant word reading and fluency problems as well as vocabulary and comprehension difficulties (Cirino et al., 2012)" (p.165). This supports the fact that if a student cannot decode, they will then continue to struggle with vocabulary and comprehension.

The purpose of this study is to explore the result of teaching explicit phonics for reading intervention to upper elementary students. I plan to answer the question, *How does intensive phonics intervention support upper elementary students' growth in luency and their attitudes toward reading?*

At the completion of this study, interventionists, classroom teachers and students will benefit the most. This study will give teachers the insight needed to best teach struggling readers. Interventionists will have the knowledge of how to best support this group of older students. The group that will benefit the most will be the struggling readers. Hopefully the findings will lead me to what intervention will best serve this group of students. I plan to take the findings to share with my team of interventionists at my school and hopefully we can all implement what is found with our upper elementary students.

EARLY CAREER EDUCATORS' EMOTIONAL EXPERIENCES

Presenter(s):   Eaton-Willyard, Rachel, Graduate, Teaching and Learning

Mentor: Dr. Meghan Kessler

The emotional experience of teaching can be difficult for veteran teachers to grapple with, but early career educators who are learning their profession as well as navigating their mental well-being experience additional stress and may begin to question if they will remain in the profession in subsequent years. This study sought to investigate how the emotional experiences of early career teachers affect their outlook on their profession. The participants included early career educators, defined as those in the first five years of their careers, who were in a k-12 school and part of their union. The chosen district was highly diverse regarding race, ethnicity, language, and socio-economic status and was in an urban setting. Surveys were analyzed to find perceptions of stress levels before, during, and after the school day, and to find potential sources for stress. Interviews were transcribed and coded for themes to uncover early career educators' specific emotional experiences within their field. Overall, early career educators reported they found their jobs somewhat stressful and stressful, which interrupted sleep schedules and manifested in physical symptoms. The teachers reported that their union supported them and that they were not planning on leaving the teaching profession. Based on tentative findings, unions should connect with their early career members to ensure they are finding the support they need while at school.

DIFFERENTIATED INSTRUCTION & INTERVENTION TO ACCELERATE LITERACY GROWTH FOR ALL STUDENTS

Presenter(s):   Fiedler, Kayla, Graduate, Teaching and Learning

Mentor: Dr. Terry Husband

With the current cultural, academic, and linguistic diversity in today's classrooms in the United States, differentiated literacy instruction is a necessity. Although much research exists on differentiated reading instruction and intervention, a significant number of fourth-grade students nationwide (over 60%) continue to fail to achieve reading proficiency (NCES, 2022). Beginning reading teachers play a pivotal role in early identification of reading difficulties, intervening early to prevent students from falling behind, and differentiating their instruction to promote reading achievement for all students. However, a problem occurs when schools and teachers implement reading instruction that does not meet the specific reading needs of their student (both proficient and nonproficient readers). As schools continue to implement a variety of literacy curricula and practices, this research provides insights into differentiated instruction and intervention that reflect the expertise of elementary literacy teachers and specialists (kindergarten through fifth grade) and the diversity of students' reading needs. This study examines how teachers' early literacy skill knowledge, beliefs about student support, and confidence levels in supporting students may affect the differentiated instruction and/or intervention they implement in their classroom. Utilizing a mixed methods approach, I am blending qualitative and quantitative data collection methods (Efron & David, 2020) to survey and interview teachers, and to analyze their Tier 1 and Tier 2 (if applicable) lesson plans. Since this study is conducted at a small school with small class sizes, every classroom teacher also acts as an interventionist, hence the request of Tier 2 intervention plans as well. Survey responses will be analyzed for: teachers' knowledge of code-focused and meaning-focused components of literacy instruction; teachers' perception on how often their students need additional support with specific literacy practices; and teachers' perception of their confidence levels in providing instructional support with specific literacy practices. The learning objectives and utilization of differentiated instruction and/or intervention based on students' individual needs will be evaluated within their submitted lesson plans. Following the completion of the survey and submission of lesson plans, individual interviews will be conducted to gain a detailed description of the decision-making processes behind the teachers' means of differentiation. I am currently collecting and analyzing the data with the full findings and implications forthcoming.

EXAMINING PRAISE IN MIDDLE SCHOOL CLASSROOMS

Presenters(s): Gillaspie, Jocelyn, Graduate, Teaching and Learning

Mentors: Dr. Terry Husband

Co-Mentor: Dr. Robyn Seglem

Authorship: Jocelyn Gillaspie, Terry Husband, Robyn Seglem

Survey data from the 2021-2022 school year revealed that teachers reported an increase in disruptive behaviors in the classroom, disrespect of teachers, and rowdiness outside of classrooms since before the COVID-19 pandemic (National Center for Education Statistics, 2022). Anecdotally, teachers report that students are more dependent learners and reluctant to take academic risks in their classrooms. The "tough love" philosophy found in secondary classrooms likely intensifies these issues. In an attempt to identify what motivates students and how to create more positive classroom climates, this study examines the types of praise currently in use in middle school classrooms, and how these praise habits align with student preferences for praise. This study focuses on teachers and 6th and 8th grade students at a suburban middle school. The researcher plans to use a combination of surveys and interviews to gather data about the types of praise middle school teachers currently use in their classrooms, along with journaling and interviews to establish patterns in middle school students' preferences for praise. At this time, findings are tentative.

MOTIVATING THE RELUCTANT LEARNER

Presenter(s): Gress, Krista, Graduate, Teaching and Learning

Mentor: Dr. Anna Smith

Student engagement is essential to the learning process across content areas. Many professional development opportunities for educators focus on implementing different learning strategies in order to spark student interest and create or increase motivation to learn. Students also learn strategies through social emotional learning classes and minilessons conducted throughout the year. Parents, who know their child's work ethic from a different standpoint, may also offer insights on how they motivate their child to complete tasks presented to them in the educational environment. Therefore, this study explores the different strategies that teachers, students, and parents use to inspire and sustain a love of learning.

In this study, I will be collecting data about motivational strategies that work by interviewing teachers, students, and parents. I will interview teachers about what strategies and actions have worked for them when helping students who are reluctant to engage with the classroom lessons and assignments. I will also interview students one-on-one in a separate setting. Lastly, I will ask parents to answer survey questions about how they motivate their child outside of school. With a mixed methods approach, this study aims to gather data about motivational strategies that students, teachers, and parents use in order to engage and inspire reluctant learners. As stated by Efron and Ravid (2020), "The mixed-methods approach proposes to cross boundaries between worldviews and blend (or combine) qualitative and quantitative research methods and techniques into a single study" (p. 50). To gather quantitative data, a survey will be sent out to the parents of current 6th, 7th, and 8th grade students. The survey will be reviewed for commonalities and differences in parent perspectives on their child's motivation to learn and the strategies they use to keep their child engaged and inspired. In addition, the study will conduct three to five teacher interviews and three to five student interviews to collect qualitative data on motivational strategies used by both parties.

At this point in time, I do have any tentative findings besides classroom observations of 7th and 8th grade students. The students in these classes vary in how much they feel motivated at school. Ultimately, research needs to take place and data needs to be collected in order to draw conclusions regarding the motivational views of students, teachers, and parents.

LEADERSHIP CHARACTERISTICS AND SUPPORTS: THEIR EFFECTIVENESS IN EMPOWERING THE FUTURE OF TEACHERS POST-PANDEMIC

Presenter(s):   Halfman, Grace Elizabeth, Graduate, Teaching and Learning

Gross, Laura, Graduate, Teaching and Learning

Klein, Kelly, Graduate, Teaching and Learning

Mentor: Dr. Anna Smith

Authorship: Grace Elizabeth Halfman, Laura Gross, Kelly Klein

In the wake of the COVID-19 pandemic, teacher retention has been a growing problem. Thirty percent of new teachers leave the profession within the first five years (Ronfeldt et al., 2013). In addition, around two-thirds of teachers leave the teaching profession for reasons outside of retirement (Sutcher et al., 2019). The reasons for high teacher turnover are varied, but the way it negatively affects student achievement is acute (Ronfeldt et al., 2013). Teacher shortages place a significant burden on school districts, particularly school principals. To increase teacher retention, school administrators must find effective ways to support teachers. Many teachers recognize that they need support, but what specific support would be effective enough to influence them to stay in this post-pandemic climate?

This study utilizes a mixed-methods research approach to examine effective leadership characteristics and supports that positively affect teacher retention. This research combines quantitative surveys with qualitative interviews to gather perspectives from various stakeholders-- teachers, school administrators, and principal preparation programs. Data collection includes digital surveys and semi-structured interviews, focusing on leadership styles, communication, support strategies, teacher autonomy, and work-life balance.

Tentative findings suggest that effective leadership, characterized by empathy, strong communication, and support for professional development, plays a crucial role in teacher retention. Early data also shows that educators highly appreciate principals/administrators who provide autonomy in the workplace, value their well-being, and foster a positive and supportive school culture and climate. All in all, these leadership practices help reduce burnout and enhance job satisfaction, both of which are key factors in improving teacher retention.

Overall, this research study aims to improve teacher experience in schools to lead to higher retention rates across the board. This study will help to provide insights into the specific leadership traits that contribute to a positive work culture. These findings will empower educators and administrators to collaborate more effectively, leading to improved teacher retention rates.

CULTURALLY RESPONSIVE PHONICS: EDUCATORS BUILDING LITERACY DEVELOPMENT IN DIVERSE CLASSROOMS

Presenter(s):   Hochstetler, Samantha, Graduate, Teaching and Learning

Mentor: Dr. Terry Husband

This research employs a qualitative approach to investigate the specific challenges K-2 teachers face when implementing culturally responsive phonics strategies and identifies the instructional methods they find most effective for skill development in diverse classrooms. Focusing on a charter school serving primarily low-income students, the study involves K-2 teachers responding to a Qualtrics survey addressing their understanding of phonics instruction, challenges in executing their current phonics curricula, supplemental resources, curriculum effectiveness, student engagement, and differentiation strategies. The research underscores the importance of addressing the literacy gap in students, particularly for beginning or struggling readers, as foundational reading skills developed from kindergarten to second grade are crucial for future success. It also highlights the barriers these students encounter, such as socioeconomic challenges and varying language proficiencies, emphasizing the need for educators, administrators, and curriculum developers to consider these factors to better support diverse learners.

THE IMPACT OF EXPLICIT VOCABULARY INSTRUCTION ON STUDENTS' READING CONFIDENCE IN FIRST GRADE

Presenter(s):   Jennings, Catherine, Graduate, Teaching and Learning

Mentor: Dr. Terry Husband

The purpose of this study is to examine the impact of explicit vocabulary instruction taught in a small group setting on the reading self-efficacy of first-grade students by asking the question: What is the impact of explicit vocabulary instruction in a small group setting on the reading self-confidence of first-grade students?

Explicit vocabulary instruction is a critical piece to student reading success. An overlooked aspect of reading success is strong reading self-efficacy. This study will examine the impact of explicit vocabulary in a small group setting on the reading confidence of first-grade students. The explicit vocabulary lessons will be administered in two different small-group settings. I will collect pre and post-lesson survey results from first-grade students twice a week. Currently, there are two trends emerging from the data. First, students who struggle with reading show improved reading self-efficacy in the data, as do students who read above grade level. Students who are reading at or around grade-level are not showing growth in their reading self-efficacy at the moment. Additionally, survey results show that students do find value in explicit vocabulary instruction in the classroom. The final results of this study will be disseminated in journals, conferences, and professional development settings.

READING FLUENCY INTERVENTIONS: REPEATED READING VS. INTERVAL SPRINTING

Presenter(s):   Keirn, Christy, Graduate, Teaching and Learning

Mentor: Dr. Terry Husband

This study will examine the effects of two different intervention programs, repeated reading and interval sprinting, on reading fluency in seven 2nd-grade students. The research will compare how these interventions impact the students' reading comprehension and word recognition. One group will participate in a repeated reading program, focusing on reading familiar texts multiple times to improve fluency, while the second group will engage in interval sprinting sessions. The results will provide insights into how these interventions may enhance reading skills in early learners.

THE IMPORTANCE OF PLAY IN LITERACY

Presenters(s): Langusch, Lisa, Teaching and Learning

Mentor: Dr. Terry Husband

The increasing emphasis on curriculum standards in kindergarten has led to a reduction in play-based learning, with some districts limiting play to less than thirty minutes per day. Research clearly demonstrates the benefits of play-based learning and outlines strategies for its effective use in the classroom. However, there is a lack of research addressing how play-based learning can specifically support literacy development. Over the past decade, educational leaders such as administrators, principals, and state representatives have made significant changes to how play is incorporated in kindergarten classrooms. Previously, kindergarten was centered around independent play with materials like blocks, Magnatiles, Legos, Lincoln Logs, and pretend play. However, with the introduction of Common Core and updated state standards in Illinois in 2010, curriculum and instructional priorities shifted, leading to time constraints that limit play in the daily schedule. As curriculum demands increased, play was relegated to a secondary role, resulting in a significant reduction in play-based learning each year. This study examines teachers' perceptions and experiences of integrating play into their literacy instruction using a mixed-methods approach. Two preschool teachers, four kindergarten teachers, and two first-grade teachers from Ivy School District completed a quantitative survey on the role of play in their daily literacy blocks. A follow-up qualitative survey explored their feelings and strategies for incorporating play into literacy instruction. Classroom observations were conducted to document how and to what extent play was used during literacy sessions in preschool, kindergarten, and first-grade classrooms. The findings indicate that play has significantly diminished in elementary classrooms over the past decade. While teachers acknowledge the importance of play, they are finding creative ways to incorporate it within their literacy curriculum whenever possible. The study concludes that it is essential for early elementary educators to integrate play into their literacy instruction, as it provides valuable support for young learners' development.

CLASSROOM MANAGEMENT WITHIN SMALL GROUP INSTRUCTION FOR MULTI- AGED STUDENTS

Presenter(s):   Mitrega, Olivia, Graduate, Teaching and Learning

Mentor: Dr. Anna Smith

Classroom management is an important factor in creating an effective learning environment, especially in settings where teachers work with students across multiple grade levels. This study focuses on the impact of consistent classroom management strategies on student engagement and success during small group instruction. The research is conducted within a Polish bilingual/ESL classroom serving students in grades K-5. The participants include four first-grade students (with varying language proficiencies, including Polish and Ukrainian speakers) and four fifth-grade students (representing a mix of linguistic backgrounds, including Ukrainian, Mandarin, Lithuanian, and Albanian). Additionally, three teachers who specialize in small group instruction across multiple grades will also be involved in the study.

A qualitative research design is employed, utilizing surveys, interviews, and classroom observations to collect data. Preliminary findings indicate that inconsistent classroom management strategies, such as varying approaches between younger and older students, can hinder both student behavior and academic progress. Also, the "token economy" system, used with older students, has shown some success but is affected by a lack of consistent follow- through. Initial observations suggest that students' behavior is often influenced by the teacher's approach to classroom management.

This study aims to contribute to the existing literature on classroom management, specifically within small group settings, and will offer insights into effective practices that promote consistency across grade levels. The implications of this research are significant for improving classroom management techniques in diverse, multi-aged classrooms, potentially benefiting both teachers and students by providing a more cohesive and effective instructional experience.

STUDENTS' AND TEACHERS' PERCEPTIONS OF SEL CURRICULA IN ELEMENTARY SCHOOLS

Presenter(s): Muzzarelli, Kristin, Graduate, Teaching and Learning

Hedge, Jordan, Graduate, Teaching and Learning

Mentor: Dr. Anna Smith

As mental health continues to take a greater focus in the eye of the general public, especially after the COVID-19 pandemic, there has been a national push to prioritize social-emotional learning in schools. This study explored teachers' and students' perceptions of SEL curricula to continually improve such instruction to meet the needs of today's learners. Teachers and students within two districts in central Illinois, with varying levels of racially, ethnically, and linguistically diverse student bodies, were surveyed, and a smaller sample of teachers and students were interviewed. Both quantitative and qualitative data were drawn upon for a mixed methods research approach. The survey and interview responses were analyzed to identify patterns in educators' and students' views based on their experience with SEL instruction and curricula. Overwhelmingly, teachers noted the importance of SEL curriculum and instruction in their classrooms for their students along with a multitude of factors that impede the effectiveness of such learning, such as a lack of student interest, engaging lessons, class time to implement lessons, and resources available within their respective curriculums. Initial responses from students have indicated that they recognize the importance of SEL lessons and activities while also reporting increased confidence in using the various SEL skills they learn in daily life. Based on the current findings, we recognize the necessity for school districts to seek out both teacher and student input when exploring new resources and curricula for SEL. With teachers and students being the primary stakeholders in the relevancy and success of the curricula, it is imperative that their wants and needs be considered before allocating resources to purchase these materials.

DEMYSTIFYING NATIVE SPEAKERISM IN ENGLISH TEACHER EDUCATION

Presenter(s):   Narongsaksakul, Watsachol, Graduate, Teaching and Learning

Mentor: Dr. Ellis Hurd

Authorship: Watsachol Narongsaksakul

This presentation explores native speakerism —the problematic division between native English speakers teachers (NESTs) and non-native English speakers teachers (NNESTs)—resulting in the controversy surrounding desirable English language teaching professional identity. This critical issue informs ideological beliefs about the English language as a property. The most recent theoretical foundations address the privilege of NESTs that should be detached from a Western approach. Acknowledging power differentiation is another consideration that reinforces NNESTs' valuable cultural and linguistic backgrounds and imposes an unrealistic standard of language articulation and production.

UNPACKING AI PEDAGOGY FOR K-12 EDUCATORS OF MULTILINGUAL LEARNERS (MLs)

Presenter(s):   Narongsaksakul, Watsachol, Teaching and Learning

Mentor: Dr. Ryan Brown

Authorship: Watsachol Narongsaksakul

Despite the change to a pluralistic society in the US educational landscape, K-12 educators are still determining the applications of artificial intelligence in education (AIED) and recognizing the need for adaptations. This presentation aims to explore the means by which AI pedagogy supports educators in teaching multilingual learners (MLs). AI pedagogy is addressed to enrich diversity and codesign the MLs lessons to be more culturally responsive teaching with AIED. Three usages of AI pedagogy will be discussed: (1) creating personalized learning materials, (2) engaging in interaction and collaboration with chatbots, and (3) using stimulation through intelligent virtual reality (IVR).

TRANSFORMING TEACHER PREPARATION PROGRAMS WITH AI LITERACY

Presenter(s):   Narongsaksakul, Watsachol, Graduate, Teaching and Learning

Mentor: Dr. Ryan Brown

Authorship: Watsachol Narongsaksakul

This presentation entails the most current research to enhance preservice teachers' (PSTs) AI literacy. Twenty-two US states have issued AI guidelines that underscore the importance of AI literacy (Kosta, 2024). As non-AI experts, PSTs are encouraged to explore AI curricula enhancement and integration in their classrooms (Chiu, 2022). Owing to the pressing need to refine AI literacy in different contexts, this movement requires non-AI experts to determine professional knowledge and skills (Laupichler et al., 2022). Therefore, PSTs are equipped with professional knowledge to educate students effectively while augmenting their workflow. Co-design teaching and learning with AI prioritizes PSTs' agency, enhancing the contextual usability and application as AI infusion makes critical decisions to the student's academic achievement success and bridges the equity and inclusion gap in K-12 education.

AI IN THE PRIMARY GRADES

Presenter(s):   Obispo Serrano, Concepcion, Graduate, Teaching and Learning

Mentor: Dr. Terry Husband

This study was designed to investigate how primary school teachers perceive AI education and its impact on student engagement. 50 teachers across the United State were surveyed and 5 were interviewed based on their willingness to participate and their responses. To identify any recurring themes and patterns a contingency table analysis was employed. Recurring themes and patterns were used to generate follow-up questions for the interview phase. Interview response was analyzed using thematic content analysis to identify common themes and patterns in their responses. Findings will be forthcoming.

ELEMENTARY TEACHER MOTIVATIONS AND IMPLEMENTATION OF ABILITY GROUPING FOR READING INSTRUCTION

Presenter(s):   O'Neill, Elizabeth, Graduate, Teaching and Learning

Mentor: Dr. Terry Husband

Teachers are constantly on the quest of supporting student growth by gathering data, analyzing it, and modifying their lessons and strategies. As reading scores have been in decline, teachers have been gathering data and wondering, *what else can I do?* This study analyzes the motivations and practices of elementary school teachers who believed ability grouping for reading instruction could be the answer to this question. Historically, ability grouping for reading instruction has not been beneficial for all students, specifically those in the lower ability group. This leads to the question of why teachers would choose this method and what they do differently in an ability-grouped setting than a mixed-ability setting to benefit all students. This study begins with a survey of elementary teachers from across the United States who have used ability-grouping for reading instruction. A smaller group of four third grade teachers are in case study which collects interviews, lesson plans, and lesson observations. As the study progresses, these interviews will be analyzed using an open coding method to identify common themes within teachers' motivations for ability grouping and their perceptions of it once the practice was implemented. This method will also identify the variation of teaching practices within ability groups. At this time, the survey of 43-participants suggests that elementary teachers utilizing ability grouping for reading instruction are mostly working with students that are 1 or 2 years below grade level. Overwhelmingly the most implemented practice for these groups is direct teacher instruction; however, 84% of teachers surveyed believed that ability grouping would support differentiation for their students. In initial interviews with the case study, teachers believe that they are able to better differentiate for their students and feel satisfied with the growth that is being made. They share that students feel more ownership of their work and are still working towards the same grade level standards, just at different rates and with a variation of scaffolds. These tentative findings suggest that while teachers mostly implement ability grouping to support students who are not yet on grade level, they are not typically deviating from whole group instruction. Even though the majority of teachers describe their motivation for ability grouping as increased differentiation for students, their differentiation tactic is their approach to whole group lessons rather than specific, individualized skills for the students within their ability group.

CAUSES AND IMPACTS OF TEACHER BURNOUT ON SECONDARY EDUCATION TEACHERS

Presenter(s): Peters, Joshua, Graduate, Teaching and Learning

Mentor: Dr. Meghan Kessler

Authorship: Joshua Peters

Post-COVID, more than ever, teacher burnout has become a major cause for concern. As teaching continues to change, due to technological changes, new laws, trends in education, and tumultuous political climates, teacher burnout needs to be addressed. The factors that seem to contribute most heavily to reducing teacher burnout are support with LMSs, support from administrators, an emphasis on teacher mental health and autonomy, and also sound financials in terms of district resources and salary. The participants for this study will be secondary educators in the American Midwest. Participants for the survey portion will be selected through snowball sampling. This approach will allow data to be gathered from multiple high schools and potentially reach a larger number of educators in many unique contexts, as opposed to using one research site. The fear is that an isolated research site could add bias to the results, given that the participants will have more similar experiences, as opposed to a broad approach where educators would be weighing in from different schools and districts. The primary mode of data collection will be rating scale (Effron & Ravid, 2020), in which participants will rate their experience with burnout and other stressors and provide a small amount of demographic data which will include experience in education as well as subject area. This will be used to collect larger amounts of data from teachers in central IL, primarily. The second method will cover qualitative data collection. A structured survey, which uses preset questions in a particular sequence (Effron & Ravid, 2020), will be used to gather detailed teacher perspectives with comparable data. This design will allow for broader trends to be analyzed through survey data, and also have that data be contextualized through interview data from unique teacher perspectives collected in interviews. Tentative findings show that teachers find similar stressors to be factors in burnout as previous research, however student behavior has been a very prominent indicator of teacher stress and burnout as well. In interviews, teachers from different levels of experience shared similar stressors – primarily workload and student behavior-based – and mentioned that administrative support was a crucial piece in the puzzle. Based on these findings, administrators should focus on finding ways to minimize teacher workload and support teachers with behavior-issues to mitigate burnout.

INVESTIGATING STUDENT ENGAGEMENT AND INDEPENDENCE THROUGH OWNERSHIP IN LITERACY CENTERS

Presenters(s): Poskonka, Bryann, Graduate, Teaching and Learning

Mentor: Dr. Anna Smith

In structured literacy centers, students often follow pre-assigned tasks, limiting opportunities for autonomy and engagement. This study explores how giving first-grade students ownership of their literacy activities impacts their engagement and independence. Nineteen students from a diverse suburban elementary school participated in this study, engaging in a mix of teacher-directed and choice-based literacy centers. Data collection methods include structured classroom observations, semi-structured student interviews, goal-setting conferences, and artifact collection, analyzed to identify patterns of engagement, persistence, and autonomy. Preliminary findings suggest that students given the opportunity to choose their activities show greater motivation, creativity, and independence compared to those in structured literacy tasks. Additionally, students who participate in goal-setting conferences exhibit higher levels of self-regulation and ownership of their learning. However, some students still require guidance to transition from structured to independent learning. These findings suggest that integrating choice and structured goal-setting within literacy centers may enhance student engagement and promote self-directed learning. Future research should explore how different levels of autonomy impact various learning styles and how teachers can scaffold independence effectively.

EVALUATING HOW DIRECT INSTRUCTION READING PROGRAMS AFFECT FLUENCY GENERALIZATION SKILLS IN SPECIAL EDUCATION

Presenter(s):   Sarno, Rachel, Graduate, Teaching and Learning
Mentor: Dr. Terry Husband

Promoting the generalization of oral reading fluency has been a topic in special education for many years. The science of reading has promoted structure and explicit instructions for students to learn how to read, but there could be cons in generalizing outside of specific direct instruction programs. This study's significance is to learn more about how special education students are generalizing skills they learn in direct instruction reading programs. The participants of this study are students who are a part of a self-contained classroom where they receive most of their core instruction and integrate into the general education classroom for specials and social opportunities. These students all qualify for instruction through their Individualized Education Plans. A sample of general education teachers and special education teachers will be interviewed to compare their personal findings with direct instruction and the data found in this study. As a special education teacher, I have the opportunity to watch other staff members implement direct instruction on a daily basis. I will be completing two observations to see these programs through a different lens and compare the data to the findings in the observation. Weekly Curriculum Based Measurements will be taken to measure each student's oral reading fluency progress. Based on tentative findings, students have progressed through CBM data. However, the progress is at a slower rate compared to the norm- referenced data within their grade levels. Teachers conveyed that when a program is implemented with the right training and students who can benefit from structure, direct instruction is found to be successful. Based on tentative findings, direct instruction reading programs are recommended for students who benefit from structure and explicit teaching skills from a young age. Students with significant disabilities are able to make progress with direct instruction, although it might be at the rate to get the students on grade level reading standards.

MOTIVATION GENERATION: AN AI'S STRENGTH AND STUDENT ENGAGEMENT IN THE ALTERNATIVE-SETTING SCIENCE CLASSROOM

Presenter(s): Scotkovsky, Matthew, Graduate, Teaching and Learning

Mentor: Dr. Meghan A. Kessler

Artificial intelligence (AI) is a technology that continues to become increasingly more prevalent, for better or worse, in the classroom. One such way that it has seen use in the classroom is in the generation of lesson plans by teachers who use AI-driven large language models (LLMs) such as OpenAI's ChatGPT and Google's Gemini. In order to see if these LLMs are, or could be, a reliable way to craft lessons as the technology continues to improve, the purpose of this study is to determine if a correlation exists between the strength of these different LLMs (measured in "parameters") and the levels of student engagement reported by students who engage in the lessons generated by these LLMs. The participants involved in this study were ten students across two classrooms in an alternative-setting high school located in a suburban town in Illinois. This data was then collected by having four different AI-driven LLMs with different numbers of parameters generate two lessons each, and by having the student participants fill out a seven-item engagement survey after each lesson, giving them a total average engagement score to report. A correlational analysis between the number of parameters of the LLMs and the engagement scores reported for the respective lessons was then run through SPSS to determine if a correlation existed between these two data sets. Findings showed that a correlation actually did not exist between the strength of an AI-driven LLM used to generate a lesson plan and the self-assessed student engagement scores reported for that lesson. This opened up conversations about student perceptions surrounding AI usage in the classroom and the digital literacy of students in the alternative-setting classroom. Should a teacher choose to integrate AI into their classroom, they may observe many differences between the lesson plans created by AI tools of varying strengths. But they should also be aware that student engagement will not be affected by these changes.

THE EFFECTS OF READING MODE ON ORAL READING FLUENCY

Presenter(s):   Sharp, Matt, Graduate, Teaching and Learning

Mentor: Dr. Anna Smith

Authorship: Matt Sharp

Debate rages on regarding the efficiencies and hindrances of personal digital technology related to classroom instruction. The purpose of this study is to examine the effects of digital device-based reading compared to print-based reading on second-grade reading fluency. Specifically, how does oral reading fluency differ as the mode of independent reading periodically changes? This study is being conducted in a second-grade classroom in an elementary school in a small midwestern city. Participants are 12 second-grade students from a single classroom, reading at various independent literacy levels.

For qualitative data collection, students will complete a brief reading survey to gauge interest in, engagement with, and attitudes toward reading. This tool will be used in conjunction with periodic observations of each reader by the researcher both during and apart from the oral reading fluency assessments. Quantitative data will include: (1) Correct Words Per Minute [CWPM] read during each fluency assessment; (2) time logged reading independently within each interval, measured digitally and manually; and (3) fluency growth percentage measured between intervals (digital vs. analog) and within intervals (digital vs. digital, analog vs. analog).

Preliminary data reveals no prevailing trend regarding fluency increase or decrease, though the reading survey and initial observations show enthusiastic student readers exuding notable confidence in their abilities. As the data is collected, conclusions may be drawn between reading fluency performance, reader self-calibration, and preferences or comfort with the alternating reading media.

EXPLORING THE IMPACT OF PROJECT-BASED LEARNING ON STUDENT ENGAGEMENT

Presenter(s):   Tassart, Jessie, Graduate, Teaching & Learning

Mentor: Dr. Meghan Kessler

This study explores the impact of project-based learning (PBL) on middle school students' motivation, engagement, and critical thinking skills. Many educators are unsure about using PBL because it can take a lot of time and resources. However, research shows that PBL can boost student engagement and motivation by offering real-world learning opportunities. This study uses a mixed method of research of both quantitative and qualitative data to assess the effects of PBL in a 6th-grade classroom. The classroom has a diverse group of students, including those from low-income backgrounds and students with learning disabilities. Pre and Post surveys will measure changes in student motivation and engagement while observational data will provide more insight into student engagement as well as their critical thinking. Tentative findings suggest that PBL may increase student participation, assignment completion, and mastery of skills. This research shows that, even with time and resources challenges, the benefits outweigh these and lead to greater student success.

TEACHERS ARE PEOPLE TOO: THE IMPACT OF COMMUNITY VIOLENCE ON TEACHER WELL-BEING

Presenter(s):   Titus, Nate, Graduate, Teaching and Learning

Mentor: Dr. Meghan Kessler

Gun violence is an epidemic that can impact the lives of the people who work in the American public school system. There is a vast amount of research about various outside factors that contribute negatively towards student success within a public-school building, but within the parameters of professional research, the perspectives of teachers and school staff members regarding these same outside factors are sometimes disregarded. Between the high expectations from administrators, families, and society, and the other stressors that come with being a teacher, a teacher's well-being can become forgotten in the hierarchy and needs of their lives. Like anyone connected to or associated with community gun violence, teachers' lives can also be impacted. To better understand how to support teachers and other school staff members when violence occurs in their school community, this study analyzes the impact of community gun violence on the well-being of various K-8 public school staff members. Teachers and staff members at a racially, linguistically, ethnically diverse rural school district were surveyed and interviewed. The responses in both the surveys and the interviews were interpreted using an open coding method. Tentatively, school staff members shared an honest look into the mostly negative impacts of gun violence on their well-being while at school. Participants talked about being afraid or nervous to come to school, especially after a shooting or homicide had taken place the night or weekend before. Staff members shared personal anecdotes about their own experiences with gun violence or the stories that their students have shared with them. Staff members felt as though the community, police force, and local government needed to do more to protect the children being impacted by gun violence. Staff members also shared that while they may have been scared or nervous about the violence in their community, they did feel safe with the resources their school district has put in place to stop violence in the school building. There was some hesitant appreciation that the violence in the community had not spilled into the actual school buildings in the district. Based on these tentative findings, the researchers recommend schools continue putting safeguards in place to help keep violence out of our school buildings. There needs to be more support in place for when violence does happen, especially from the local government or police force. Staff members should never have to feel afraid or nervous when at work.

TEACHER PERCEPTIONS ON THE INFLUENCE OF THE BEANSTACK DIGITALREADING TRACKER IN ENHANCING STUDENT MOTIVATION FOR INDEPENDENT READING

Presenter(s): Upjohn, Carrie, Graduate, Teaching and Learning

Mentor: Dr. Meghan Kessler

Students have more options for recreational activities than ever before, which has had a negative effect on the average time spent independent reading. Following the COVID-19 pandemic, many students were quite literally addicted to screens. As a result, gamification in education has seen a significant increase over the past few years. Gaming and education have frequently been at odds, with education being seen as providing knowledge and skills and gaming seen as time wasted (Tan, 2018). Integrating gamification and game-based learning into education can help students develop intrinsic motivation to continue reading independently and create sustainable learning attitudes (Li et al., 2023). Using a digital reading tracker such as Beanstack provides may provide the flexibility of both intrinsic and extrinsic motivation for independent reading. Teachers at a diverse elementary suburban school district were surveyed, with a smaller sample opting to participate in an interview. Teachers regarded the motivation of students as positive, if extrinsic motivational factors were provided. In interviews, teachers addressed the positive correlation between their own motivation to use Beanstack and their students'. Teachers often expressed that, because the use of Beanstack for staff and students is optional and not mandatory, they simply do not have time to cover the usage within their curricular day. Based on these tentative findings, it is recommended that Beanstack remains an optional resource for both students and teachers to maintain current levels of independent reading motivation. Additional research needs to be conducted on gamification's short- and long- term effects on intrinsic and extrinsic motivation for student independent reading.

STUDENT PERCEPTIONS ON FEEDBACK

Presenter(s):   Webb, Casandra, Graduate, Teaching and Learning

Mentors: Dr. Terry Husband

The problem that I am exploring involves student perception of written/verbal feedback on their writing from teachers, peers, and use of technology. Students typically thrive on feedback given that it guides their learning and highlights areas of strength. As students get older and writing style and interests change, perceptions on types of feedback also might change. Teachers are lacking appropriate time to give effective feedback, so might turn to AI tools or peer feedback to help with this process to still provide students with feedback in a reasonable amount of time. In my experiences I have seen students want to sit with me and have a verbal conference to go through their writing and provide feedback. I have also seen students respond well to digital feedback on Google Docs. Students have used peer editing in my classroom as well, and I have seen many students make the most out of this process to help their peers. On the flip side, I have also seen students who reach a point where they are "stuck" and it feels like they want me or their peers to do the writing for them, which tells me they are not needing feedback as much as some internal inspiration. My study will use an anonymous survey to collect responses from 4th grade students in a rural school. The study will consist of approximately 75-100 students and students will be asked to share their experience level with teacher, peer, and technological feedback as well as why they prefer or do not prefer that type of feedback compared to others. I am expecting to get mixed results with the type of feedback preferred by 4th grade students, but expect that the short answer section of my survey will give more insight into why students prefer teachers, peers, or technology for receiving feedback. Ultimately I hope to use this data to give teachers more information when deciding which style of feedback might be best for their own classrooms, and maybe even consider how these findings can transfer to other subject areas.

FAMILY ENGAGEMENT IN RURAL SCHOOLS: STUDY ON FAMILY ENGAGEMENT SUCCESSES AND CHALLENGES POST-COVID

Presenter(s):   Weingart, Katryna, Graduate, Teaching and Learning

Mentor: Dr. Meghan Kessler

Post-covid, many educators are experiencing difficulties. Specifically, educators are struggling to support connections between school and home. Extant research on the topic of family and community engagement finds that trust is a major component within the teacher-family relationship and teachers' struggle to find time to connect with families regarding their students. However, teachers still may need support maintaining positive relationships with parents and caregivers. This study explores teachers' perceptions and experiences with family engagement using a mixed methods research approach. The quantitative data was gathered anonymously among educators within rural midwestern schools through a 30 question, Likert style survey. The qualitative data was gathered through focus group interviews. Surveys and interviews were analyzed using an open coding method to find teachers' perceptions of and experiences of family engagement. At the time of this submission, data analysis had not yet begun. However, based on preliminary review, it is anticipated that teachers will report emotional and logistical challenges with caregiver/family engagement. It is recommended that teachers have more time to connect with families regarding studentsuccesses as opposed having it overlap with their preparation time.

TEACHER EFFICACY AND PERSPECTIVES ON TRAUMA-INFORMED TEACHING

Presenter(s):   Weis, Theresa, Graduate, Teaching and Learning

Mentor: Dr. Meghan Kessler

Teacher efficacy in supporting students who are experiencing trauma is a critical issue that has gained increasing attention in educational research. Teachers play a pivotal role in the emotional and academic development of students, especially those affected by various forms of trauma, such as abuse, neglect, or exposure to community violence. Students who experience trauma often exhibit difficulties in regulating emotions, concentrating, and forming positive relationships, which can hinder their learning. Since teachers are often the first line of support for these students, understanding how they perceive their ability to help trauma-impacted students is crucial in improving educational outcomes for these students. This study illuminates teachers' lived experiences, beliefs, and attitudes working with students exposed to trauma in an urban, Title I high school in central Illinois. Questionnaire responses were analyzed using an open coding method to find themes among teachers' perceptions revealed in their own words. Almost unanimously, teachers feel supported and confident in their training. Teachers shared their commitment to building connected and empathetic classroom communities that foster support and understanding for all students. Relationships are overwhelmingly mentioned as what teachers believe makes a difference in the lives of students facing trauma and what nurtures their self-efficacy in the classroom. However, teachers also disclosed that burnout and their own trauma is linked to working with students who have endured trauma. These teacher narratives call attention to a bigger issue around secondary traumatic stress within education; many teachers admit that their own self-care is not prioritized and they carry home the weight of supporting the emotional needs of students. Based on these tentative findings, additional research on the most effective interventions for trauma-impacted students is essential. Additionally, it is critical that schools prioritize the emotional well-being of teachers by providing resources, training, and support that help navigate secondary traumatic stress.

EFFECTIVENESS OF ADAPTABLE, COMPUTER-BASED, MATH INTERVENTIONS ON STANDARDIZED TEST SCORES

Presenter(s):   Wilson, Lydia, Graduate, Teaching and Learning

Mentor: Dr. Anna Smith

Authorship: Lydia Wilson

Multi-tiered System of Supports (MTSS) is a framework used to ensure all students are met with targeted support in the school system. Under the academic tier of MTSS, interventions can be used to help students grow in different subject areas. After the COVID-19 pandemic, students are showing different levels of learning gaps and setbacks in mathematical foundations and knowledge. A growing trend in academic interventions in mathematics is to incorporate personalized, adaptive mathematics programs to help meet students at their academic level. A random sample of students at an ethnically, racially, financially, and linguistically diverse middle school were selected to participate in this study. This study is composed of sixth, seventh, and eighth grade students. The adaptive computer-based math program used for Tier 1 support at this school is Waggle. Students have been surveyed and observed on the minutes and usage in Waggle. That time has then been compared to growth on their standardized testing, STAR, to determine if there is a correlation between time spent in the program and growth on test scores. Based on the tentative findings, there is a positive correlation between time spent in the program Waggle, and growth on the STAR test scores in mathematics. These findings show that for tier 1 students, adaptive, computer-based technologies can be connected with growth on standardized tests.

SEL AND PERCEPTION OF CHARACTER, LEARNING AND SUCCESS

Presenter(s): Zajda, Jessica, Graduate, Teaching and Learning

Mentor: Dr. Anna Smith

Authorship: Jessica Zajda

Historically education has overlooked the necessity of building students' social emotional learning skills in cooperation with their academic success. Following COVID, students severely lacked the social-emotional skills to be successful or even present at schools, as shared in Kardambikis et al. 2020 (2). The CASEL model has been used to improve these skills within students; however, schools continue to avoid buying curriculum and mandating time to hone them (Eagan 2023). In this study, I seek to gather information on how committed, repeated, and holistic SEL lessons impact students' perception of self, perception of learning, and perceptions of success. Students have been inactive recipients of education and "quick-fix remedies" to increase their achievement (Veena 2023. As students grow in their understanding of who they are as learners, as students, as individuals, and how they are successful, educators can use that information to leverage their growth and the students' enthusiasm for learning which will hopefully increase their academic success. The research will take place across one second grade classroom, a title one elementary school with 47% of the population on free or reduced lunch (Report Card). 22.3% of the school's population is Asian, 2.8 is Black, 29.5 is Hispanic, 38.7% are White, and 6.7 are two or more cultures (Report Card). Both quantitative data and qualitative data will be collected. Students and guardians will take a benchmarking survey to create a baseline of results. Students will complete reflection recordings answering questions. Based on students' responses, students will participate in follow-up interviews, to clarify and build themes of understanding of data (Efron & Ravid 2020). This allows for a more focused approach. My intent is to characterize the effects of strategically implemented, SEL curriculum. Expected results are that as students continue to receive daily, SEL, their perceptions of self, learning and success will shift to a more positive outlook. This study impacts students, because it is seeking to build their understanding of their own character, as well as confidence within themselves and build their core competencies. This study impacts educators because it will seek to factor SEL into the daily schedule in meaningful ways that connects with students and allows them to gain greater understanding academically, but also improve their life skills.

A CRITICAL ANALYSIS OF SME CYBERSECURITY DETECTION SYSTEMS

Presenter(s):   Clark, Alex, Undergraduate, Technology

Mentor: Dr. Stephen Mujeye

This study examines the cybersecurity policies, practices, and preparedness of small and medium- sized enterprises (SMEs) in Central Illinois, focusing on how they align with established standards. Through a detailed literature review and a survey, the research identifies common cyber threats faced by SMEs and evaluates their current cybersecurity measures. Key findings reveal that many SMEs, despite being vulnerable due to their integration of Industry 4.0 technologies, lack comprehensive incident detection and response systems. The study underscores the necessity for improved cybersecurity awareness among all levels of SME staff, including CEOs, managers, and employees. Recommendations are proposed to enhance collective cybersecurity readiness and threat detection, aiming to bolster the overall resilience of SMEs against cyber threats.