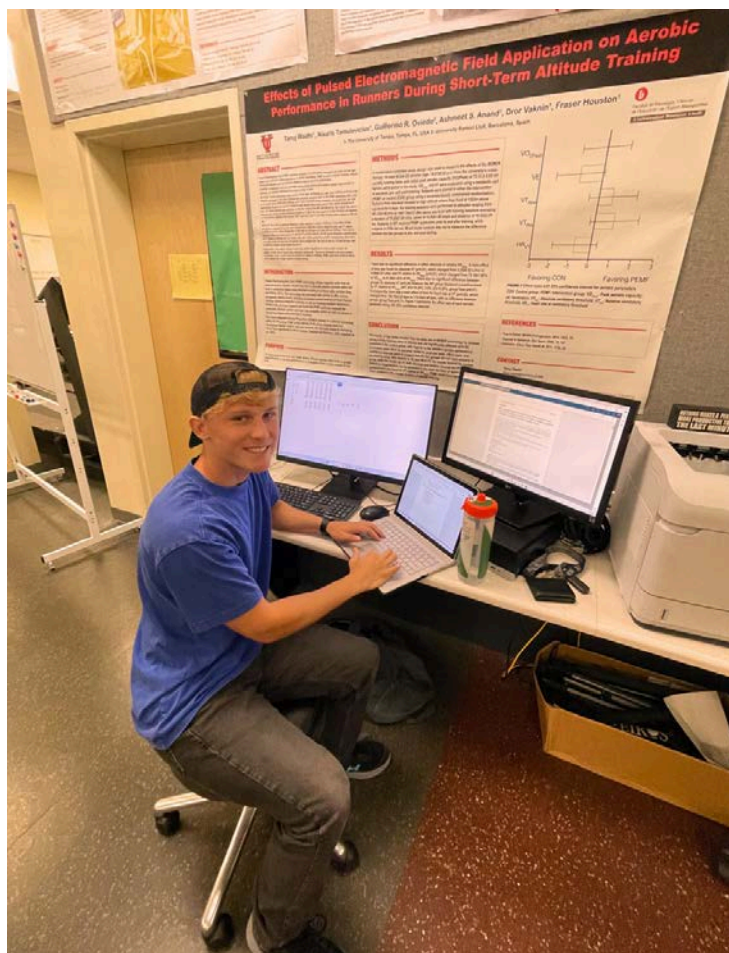
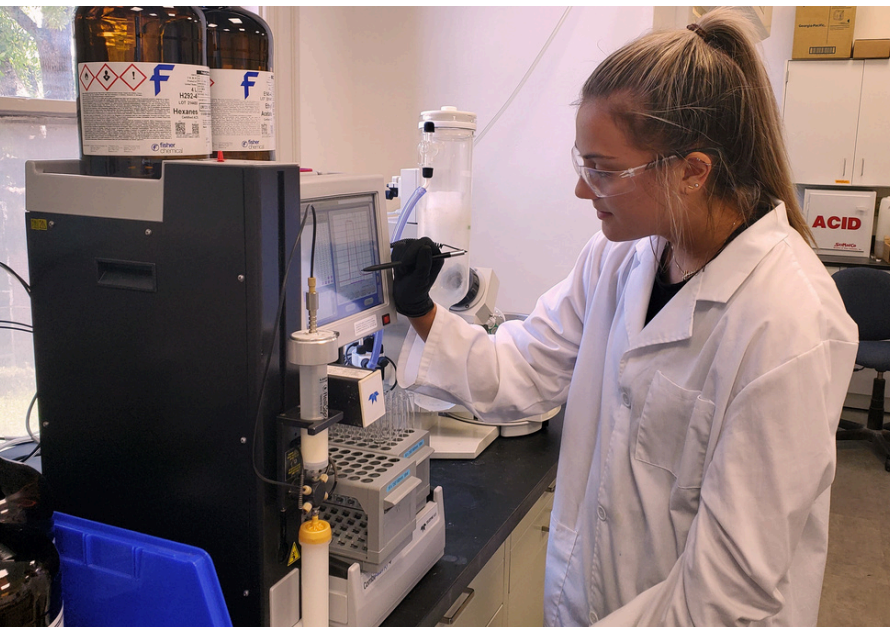




UTAMPA 2024 FALL UNDERGRADUATE RESEARCH FORUM



**FRIDAY, DECEMBER 6TH, FROM 2-4 PM IN FLETCHER
LOUNGE - PLANT HALL, 1ST FLOOR, UNIVERSITY OF TAMPA**



OFFICE OF UNDERGRADUATE
RESEARCH AND INQUIRY

Giulia Gimenez Castaldelli
Mentor(s): Dr. Amanda Osuna

1. Examining the Intersection of Generational (Dis)Trust and Cultural Betrayal in Flint, Michigan

For many decades, communities of color have faced socioeconomic disparities due to systematic neglect; with one example of this systematic failure being the Flint (Michigan) Water Crisis, where a majority Black community experienced governmental failure when their water supply was contaminated with lead. This injustice could bring back memories of historical racial injustices, causing a breach of trust and trauma to those in minoritized communities. One possible way to further understand this type of experience is using the cultural betrayal trauma theory, or CBTT. This study uses CBTT to understand how distrust operates in marginalized communities, and to explore the hypothesis that institutional betrayal trauma is an extension of interpersonal betrayal that is readily transmitted within marginalized communities in the form of cultural betrayal. Using a qualitative case study design, the data was collected from generational semi-structured interviews with three families to understand the complexities of institutional distrust and betrayal in Flint, Michigan. This research provides a nuanced perspective to comprehend aspects of trust erosion, looking at both psychological and societal impacts of community betrayals. This comprehensive understanding is essential for policymakers and community stakeholders to effectively address systemic racism.

Paige Horton
Mentor(s): Dr. Amanda Osuna

2. Student Perceptions of AI-Generated CSAM

The advancement of AI has changed the creation and dissemination of deepfake content, generating profound implications for various aspects of society, particularly for children who are sexually exploited. To protect the rights and dignity of children, society must understand the full extension of this emerging issue and the impact of technological advancements. The primary objective of this study is to examine students' insight regarding the social, ethical, and legal implications of AI-generated CSAM by exploring the multifaceted ethical considerations and moral ramifications of the production and dissemination of such content. Moreover, this research aims to investigate the psychological effects of exposure to AI-generated CSAM on both the individual and societal level as well as the technological capabilities and limitations for detection and mitigation strategies, suggesting opportunities for intervention to ensure the safety of children. The present study will begin data collection in Summer 2024 using a Qualtrics survey. The target sample is students at IHEs. The data will be analyzed using R statistical software. By conducting comprehensive research on this topic, we can work towards mitigating the risks associated with AI-generated CSAM and safeguarding the well-being of children in the digital era.

Lyle Kamback
Mentor(s): Dr. Willie Leung

3. Strong Bodies, Strong Skills: The Impact of Physical Activity on Kids' Independence - 2016-2023 NSCH

Introduction: Individual functionality in children is a major part of life. Independent living includes many things such as self-care, hygiene, mobility, among many others and the more proficiently these tasks can be performed, the higher the quality of life. In response, there is a plethora of research supporting physical activity (PA) positively influencing functionality in independent living tasks. Purpose: Analyze the relationship between physical activity engagement and drawbacks in independent living for children aged 6-17 years old. Methods: A secondary data analysis consisting of the 2016-2023 National Survey of Children's Health with 119023 children were included in the analysis. To be considered for the PA engagement, the child must have engaged in at least 60 minutes of PA in at least a single day as reported by parents and/or guardians. Otherwise, the child was considered not engaging in PA. If any of the children within this study were reported for having issues in carrying out independent living tasks they were classified to have independent living difficulties. Bivariate and multivariate logistic regressions were performed to examine the relationship. Results: 4.59% (95% CI [4.31, 4.88]) of participants reported having issues with independent living tasks, while 85.91% (95% CI [85.43, 86.37]) reported engaging in PA. The analyses found that children engaging in PA were 0.35 (95% CI [0.31, 0.41]) and 0.38 (95% CI [0.33, 0.43]) times the odds of those not engaging in PA in having deficiencies in their independent living tasks. Conclusions: For children who participated in PA, there were less independent living complications. This emphasizes the importance of PA engagement among children.

Colin Moss
Mentor(s): Dr. Binod Rimal

4. Fundamentals of Stock Market and its Trade Indicators

This project aims to examine the essential tools for stock trading. Understanding a stock's technical and financial indicators is crucial before including it in a portfolio. We studied technical indicators such as Moving Average, MACD, RSI, and candlestick patterns, analyzing trading behaviors (buy, hold, or sell) using Python tools like Pandas, NumPy, and YFinance. Additionally, we assessed financial indicators, including the Beta value and Price-to-Earnings ratio, to evaluate the financial risk associated with each stock. Understanding these indicators provides valuable insights into market behavior, enhancing strategies for trading and risk management.

Abby Monette

Mentor(s): Prof. Megan Engels

5. Lab-Grown Cells: Replacing Damaged Organs and Tissues

This research explores lab-grown cells to replace damaged organs and tissues, offering a promising solution to address organ failure, traumatic injuries, and degenerative diseases. Advances in regenerative medicine, particularly through the use of stem cells, 3D bioprinting, and tissue engineering, are making it increasingly possible to grow specialized cells in laboratory settings. These cells can then be used to repair or regenerate damaged tissues, reducing the reliance on organ donors and providing a more sustainable approach to healing. The project will focus on cultivating stem cells, which have the remarkable ability to differentiate into various tissue types, and utilizing biomaterial scaffolds to support the growth of functional tissues. These tissues will be designed to closely mimic the natural structures and functions of the body, offering potential solutions for replacing damaged organs. In addition to advancing tissue regeneration, the project seeks to address the logistical and ethical challenges of organ transplantation by creating personalized, lab-grown alternatives that are tailored to each patient's unique biology. Through this work, the research aims to contribute to the future of regenerative medicine, providing new avenues for medical treatments that can improve recovery outcomes and transform healthcare for individuals with organ and tissue damage.

Brianna Nicole Siegmund

Mentor(s): Drs. Heather Schock and Yvonne Franco

6. Building Phonics Skills Through Gamified Instruction

This study examines the methods a preservice teacher utilized in data-driven interventions with her English Language Learner student to build phonics skills with a focus on letter-to-sound correspondence using technology games and game boards. Research on ways to use technology to support ELLs explains that using technology-driven games to support letter-sound correspondence is critical for learners to develop letter-sound correlations (Knutson 2023). Four strategies were implemented throughout a 14-week semester, including The Syllable Game Board, See It Sound It, Word Strips, and The Syllable Game. Findings suggested that this student built a deeper understanding of the necessary concepts and could stay engaged throughout instruction and intervention when participating in technology and gamified instruction. This study is imperative to educators because it indicates the importance of using multiple research-based methods of individualized assessments and strategies to drive technology and game instruction to support this learner best.

Alissa Capobianco

Mentor(s): Drs. Heather Schock and Yvonne Franco

7. Kinesthetic and Multi-Sensory Instruction of Early Literacy Skills: Letter Sound Correspondence

This study examines methods a pre-service teacher utilized with her struggling reader to build foundational literacy skills with a focus on letter sounds, using kinesthetic and multi-sensory activities. Research shows that movement while learning sounds of letters significantly improves student's ability to identify those individual letter sounds (University of Copenhagen Faculty of Science, 2022). Four strategies were implemented throughout the course of a 14-week semester, including The Letter Hop, Alphabet Tile Name Sort, Letter Sound Scavenger Hunt, and Shaving Cream CVC words. Findings suggested that students could stay more engaged and comprehend concepts better throughout instruction and interventions when participating in kinesthetic and multi-sensory activities. This study is important for educators because it indicates the significance of discovering students' individual motivations and using aligning research-based strategies to inform kinesthetic and multi-sensory instruction to effectively support learners.

Sydney Hemken

Mentor(s): Drs. Heather Schock and Yvonne Franco

8. Multimodal Strategies for Literacy: Enhancing Letter-Sound Recognition in ELL Students Through Data-Driven Interventions

This study investigates a preservice teacher's use of multimodal activities and strategies to drive interventions with her English Language Learner when building foundational literacy skills, with a focus on letter names/sounds. Research on teaching phonics to English Language Learners explains that the use of visual elements like pictures and manipulatives helps English Language Learners connect sounds with letters, making phonics more interactive and memorable (McMurphy 2023). Four strategies were implemented throughout the course of a 14-week semester, including Letter Hunt, Sound Bingo, Sound Matching, and Letter Sound Mystery Bags. Findings suggest that students built a deeper understanding of the necessary concepts when participating in multimodal activities/instruction. This study is crucial to educators because it suggests the importance of using multimodal strategies to support learners best.

Jenna Zwierzynski

Mentor(s): Drs. Heather Schock and Yvonne Franco

9. Enhancing Reading Comprehension Through Gamified and Multisensory Instruction

This study examines how a preservice teacher applied multi-sensory learning through gamified instruction to strengthen a fifth-grade student's reading comprehension development. Research on gamified instruction indicates that game-based learning can greatly enhance engagement, skill-building, and comprehension by aligning tasks with students' interests and preferences (Sanderell, 2024). Four strategies were implemented throughout the course of a 14-week semester, including The Step-Up Game, Cause and Effect Spinner and Scenario Card Game, Inference Match-Up Game, and Fact or Opinion Ball Toss Game. Findings suggested that students developed a stronger understanding of key comprehension skills and maintained high engagement during instruction and interventions when involved in multisensory and gamified activities. This study is valuable for educators because it demonstrates the effectiveness of multisensory and gamified instruction in enhancing students' reading comprehension, offering practical strategies for improving engagement and learning outcomes in the classroom.

Bella Lewis

Mentor(s): Drs. Heather Schock and Yvonne Franco

10. Building Fluency Using Gamified Activities

This study examines methods a preservice teacher used with her English Language Learner to build foundational fluency with a focus on vocabulary words, using gamified instruction. Research on enhancing EFL/ESL instruction through gamification asserts that games have the power to motivate learners to engage with the material and complete their tasks at a more enjoyable level. It offers an opportunity for learners to receive instant feedback, which often boosts a student's confidence and motivation to learn (Chan, 2023). Four strategies were implemented through the course of a 14-week semester including a syllable sorting activity, a story mat, a timed reading race, and an ant adventure. Findings suggested that students built a deeper understanding of the concepts presented and engagement was maximized throughout instruction and interventions when participating in gamified activities. This study is crucial to educators because it indicates the importance of using multiple modes of gamification and experiential learning activities to improve students' reading fluency.

Amanda Ferraro

Mentor(s): Drs. Heather Schock and Yvonne Franco

11. Hands-On Activities Promote Engagement in Reading

This study examines methods a preservice teacher used with her struggling reader to improve phonemic awareness while promoting engagement. Research on phonological and phonemic awareness maintains the importance of a student's ability to identify the different sounds in a word when learning to read (McArdle 2024). Four strategies were implemented throughout the course of a 14-week semester, including Sight Word Swatting, Digraph A Word, I Spy Letter Sounds, and Magnetic Letter Blending. Findings suggested that struggling readers' engagement increased in reading when hands-on activities were incorporated. This study is vital to educators because it indicates the importance of using multiple strategies, including hands-on activities to increase students' engagement in reading.

Lisa Schmiedel

Mentor(s): Drs. Heather Schock and Yvonne Franco

12. Gamification Drives Students Learning and Promotes a Positive Attitude in Struggling Readers

This study examines how using gamified learning strategies in teaching struggling readers' phonemic awareness positively impacts their attitudes and better assists in understanding the material. Research demonstrates that students indicate the use of gamified strategies reduces stress while promoting motivation. Students are able to complete challenging tasks when they are given the freedom to learn at their own pace and provided with choice. (Tan, 2018). The research methodology employed throughout a 14-week semester included Story Element Memory Match, Root Word Runner, Uh-Oh!, and the Odd One Out. Findings suggested that the student felt more confident when completing gamified tasks rather than a guided worksheet. The student also stayed engaged throughout the entire task with very little to no redirection when participating in gamified activities. This study is imperative to educators because it indicates the importance of using gamification in teaching literacy and reading to ensure engagement.

Norah Shea

Mentor(s): Drs. Heather Schock and Yvonne Franco

13. Comprehension: Using Gamified Strategies to Improve Student Understanding

This study examines methods a preservice teacher utilized to improve an English language learner's comprehension skills using gamified instruction. Research on reading abilities explains that enhancing comprehension skills through interactive games creates the foundation for successful reading and many other aspects of life (Matyakhon et al, 2024). Four strategies were implemented throughout a 14-week semester including the Fall Passage board game, Sum Thing Special, Question Cards, and Story Element Ease. Findings suggested that the student built a deeper understanding of the necessary comprehension concepts while participating in gamified instruction. This study is significant to educators because it indicates the importance of applying data-informed strategies and utilizing research to enhance students' comprehension skills.

Isabelle Najjar

Mentor(s): Drs. Heather Schock and Yvonne Franco

14. Gamification of Phonics Instruction for Struggling Learners

This study examines strategies a preservice teacher used to support a struggling reader's decoding skills through gamified activities focusing on diphthongs and digraphs. Research on game-based learning in phonics highlights the importance of interactive methods and gameplay, as well-designed phonics games engage young learners and enhance foundational literacy skills by making practice enjoyable and accessible (Terada, 2021). Over a 14-week semester, four strategies were implemented including Diphthong Bingo, Roll, Read, and Cover Digraph, Digraph and Diphthong Dash, and Vowel Pair Superstars. The findings indicated that students developed a deeper understanding of decoding diphthongs and digraphs and were able to stay engaged during instruction and interventions when participating in multi-sensory games/activities. This research is valuable for educators as it highlights the positive impact of incorporating gamified strategies in phonics instruction to support students' decoding skills.

Katelyn Grzybowski

Mentor(s): Drs. Heather Schock and Yvonne Franco

15. Phonological Awareness: Kinesthetic Strategies to Improve Long and Short Vowel Sounds

This study examines how a preservice teacher applied kinesthetic strategies to strengthen a second-grade English Language learner's knowledge of long and short vowel sounds. Research on didactic teaching explains the necessity to introduce vowels through games, followed by vowel identification and pronunciation. Specifically, words should be related to patterns and associated with pictures where vowels are represented (Torres 2024). Four strategies were implemented throughout a 14-week semester, including a Picture Hunt, Vowel Bag Hunt, Picture Sort, and Magnet Letters. Findings suggested that kinesthetic activities encouraged multi-sensory learning, promoted interest, and developed her social-emotional skills. This study is significant to educators because it indicates the importance of applying strategies informed by data and research, to enhance students' phonemic awareness.

Maggie Twomey

Mentor(s): Drs. Heather Schock and Yvonne Franco

16. Recognizing High Frequency Irregular Words Through Movement

This study examines ways a preservice teacher applied kinesthetic activities to develop her struggling reader's fluency skills. Research on kinesthetic learning discusses the positive impact that applying kinesthetic activities to learning has on boosting executive functioning skills and improving cognitive performance (Merrill & Gosner 2021). Four strategies were implemented throughout the course of a 14-week semester including High Frequency Word Hunt, Fluency Treasure Hunt, Word/Sentence Fluency Ball Toss, and Fluency Story Building. Findings indicated that intervention based on kinesthetic movement supported students to develop recognition of high-frequency irregular words in context, by improving focus and engagement with the text. This study is meaningful to educators because it shows the importance of building kinesthetic movement and/or activities into classroom learning for students to continue to build cognitive functioning skills.

Sydney E. Weber

Mentor(s): Drs. Heather Schock and Yvonne Franco

17. Promoting phonemic awareness in the context of children's literature

This study examines methods a preservice teacher utilized with an English Language Learner to advance decoding and encoding skills in the context of children's literature. Research on the effect of interactive book reading activities on children's print and phonemic awareness explains that a solid foundational knowledge of phonemic awareness using children's literature is crucial for learners to recognize letter sounds (Altinkaynak 2019). Four strategies were implemented through the course of a 14-week semester including, Dibels, Word Parts Rush, Fluency Phrases, and Syllable Swaps. Findings suggested that students built a deeper understanding of the necessary concepts and could stay engaged throughout instruction and interventions when participating in activities including children's literature. This study is imperative to educators because it indicates the importance of using multiple methods of individualized assessment and research-based strategies to drive phonemic awareness to support learners.

Dana Culhane

Mentor(s): Drs. Heather Schock and Yvonne Franco

18. Supporting Phonics with Gamification and Multi-Sensory Strategies

This study investigates a preservice teacher's use of gamification and multi-sensory instruction to support her English Language Learner in building foundational phonics skills with a focus on letter names/sounds. Research on using multi-sensory activities to enhance reading skills maintains the importance of engaging multiple senses at once to help reinforce content (DePriest, 2021). Four strategies were implemented throughout the course of a 14-week semester, including Superhero Letters, Alphabet Arc, Letter Sound Hopscotch, and CVC Bingo. Findings indicated that students developed a stronger understanding of key concepts and remained more engaged during instruction and interventions when they participated in multi-sensory activities and gamification of lessons. This study is essential for educators as it highlights the importance of using a variety of individualized assessments and research-based strategies to guide gamification and multi-sensory instruction, ultimately providing the best support for learners.

Quinci Bantle

Mentor(s): Drs. Heather Schock and Yvonne Franco

19. Enhancing Literacy Through Creative Expression

This study examines the effectiveness of creative expression interventions for improving letter-sound correspondence for a struggling learner in kindergarten. Research on creative expression highlights its benefits for struggling learners, demonstrating that engaging in imaginative and artistic activities significantly improves their motivation and understanding, empowering them to take ownership of their learning experiences (Johnson, 2019). Four strategies were implemented during a 14-week semester: See It, Sound It, Letter Sound Bingo, Letter-Sound Pyramid, and Mix and Fix. The findings show that creative expression positively impacted student engagement and motivation in relation to their literacy skills, specifically in letter-sound correspondence. This study is meaningful to educators because it addresses the foundation of reading proficiency while utilizing creative expression to develop literacy skills.

Emma Panaroni

Mentor(s): Drs. Heather Schock and Yvonne Franco

20. Building Foundational Literacy Using Kinesthetic Movement: Improving Fluency in Struggling Readers

This study examines methods a preservice teacher utilized to drive interventions with a struggling reader to enhance fluency while incorporating movement. Research on implementing opportunities for movement during reading instruction maintains that adding movement helps students reinforce key concepts while promoting concentration (Helgeson 2014). Four strategies were implemented throughout the course of a 14-week semester, including Affix Hunt, Fact or Opinion Football, Word Part Race, and Compound Word Trivia. Findings suggested that incorporating kinesthetic movement into reading instruction increased student engagement while improving comprehension and vocabulary development during reading interventions. This study is imperative to educators as it indicates the significance of employing various research-based reading strategies that incorporate movement to enhance reading instruction and benefit learners.

Isabella Bellini

Mentor(s): Drs. Heather Schock and Yvonne Franco

21. Phonological Awareness Intervention: Gamified Instruction to Improve Letter and Sound Recognition

This study examines methods a preservice teacher implemented with an English Language Learner to advance letter sound recognition using gamified instruction. Research on phonological awareness explains that incorporating experiential learning and research-based activities can increase English Language Learners' ability to recognize letter names and sounds (Patel, et al., 2022). Four strategies were implemented throughout the course of a 14-week semester, including The Letter Bag Sorting, Alphabet Memory, Roll and read, and Picture card Match. Findings suggested that gamified instruction promotes student interest and confidence in understanding letter names and sounds. This study is meaningful to educators as it indicates the importance of using gamified assessments and research-based strategies to drive kinesthetic instruction to support learners.

Alexa Houmis

Mentor(s): Drs. Heather Schock and Yvonne Franco

22. Phonological Awareness: Gamified Instruction to Improve Recognition of Short and Long Vowel Sounds

This study examines methods a preservice teacher utilized with her struggling reader to build foundational fluency with a focus on identifying short and long vowel sounds to inform instruction using gamification. Research on incorporating gamified activities through kinesthetic learning explains that using game-like experiences is critical for learners to enhance motivation, engagement, and social influence (Zainuddin, et al., 2020). Four strategies were implemented throughout the course of a 14-week semester, including Variant Correspondence Read and Roll, Diphthong Bingo, Vowel Digraph Go Fish, and Long/Short Vowel Memory Match. Findings suggested that students built a deeper understanding of the necessary concepts, as they were able to stay engaged and motivated throughout instruction, while participating in the gamified activities. This study is imperative to educators because it indicates the importance of using gamified experiential learning to enhance students' phonological awareness.

Rachel Waskiewicz

Mentor(s): Drs. Heather Schock and Yvonne Franco

23. Using Experiential Learning Strategies to Promote Comprehension in Struggling Readers

This study examines methods a preservice teacher utilized with her struggling reader to support reading comprehension using experiential learning activities. Research maintains that by engaging students in hands-on experiences, they are better able to connect theories and knowledge learned in the classroom to real-world situations (Kent State University, n.d.). Four strategies were implemented throughout the course of a 14-week semester, including The Authors Purpose Sorting Game, The Main Idea Treasure Hunt, The Story Elements Board Game, and The Main Idea Mystery Bags. Findings suggested that when experiential learning activities were implemented, the student gained a deeper understanding of the concepts and could apply this knowledge to new situations. This study is imperative to educators because it indicates the importance of using experiential learning strategies to promote reading comprehension in struggling readers.

Jaden Jusino

Mentor(s): Drs. Heather Schock and Yvonne Franco

24. Gamification of Phonics: Vowels

This study examines methods a preservice teacher utilized to drive interventions with her 2nd-grade struggling reader in Phonics, with a focus on vowels, using gamified instruction. Research on improving Phonics skills explains that utilizing games and student interests supports literacy growth (Smith, 2022). Four strategies were implemented throughout the course of a 14-week semester, including Spiderman Phonics Jeopardy, Spiderman Phonics board game, Sound and Sort, and Vowel Digraph Sort. Findings suggested incentives and including students' interests provided support and encouraged student participation and improvement in literacy skills. This study is impactful for educators because it indicates the importance of building relationships with struggling readers and incorporating their passions into learning to encourage engagement, participation, and understanding.

Alanna Mckie

Mentor(s): Drs. Heather Schock and Yvonne Franco

25. Interest-Based Instruction Builds Fluency Skills

This study examines methods a preservice teacher utilized to build her struggling reader's fluency skills while incorporating interest-based instructional strategies. Research on fluency based instruction maintains it is the key to comprehension, and explains how repeated readings, performance-based activities (like Readers Theatre), and modeling fluent reading are vital to improving fluency (Rasinski, n.d.). Four strategies were implemented throughout the course of a 14-week semester, including Fluency Reading, Readers Theatre, Repeated Readings, and Word Parts. Findings suggest that implementing interest-based activities promote students' engagement while improving their fluency skills. This study is imperative to educators because it indicates the importance of using interest-based instructional strategies to improve engagement and build fluency skills in struggling readers.

Ava Connor

Mentor(s): Drs. Heather Schock and Yvonne Franco

26. Developing Student's Knowledge of Phonics Through Kinesthetic Activities

This study examines ways a preservice teacher applied kinesthetic activities to assist a first grade ELL student to develop their knowledge of letter names/sounds through a multi sensory learning approach. Research on kinesthetic learning in early literacy education suggests that incorporating multi-sensory experiences during instruction can enhance students' engagement, comprehension, and retention of foundational reading skills (Curtis, 2019). Four methods were applied over a 14 week semester including Alphabet bubble board, Alphabet Bingo, Letter play doh, and Blending Puzzles. Findings suggested that engagement in hands-on learning supported students to gain a better understanding of key concepts and remain more focused during lessons. This study provides insight for educators, as it highlights the effectiveness of tactile learning activities in early literacy instruction to improve student engagement and build foundational reading skills.

Kamryn DeBenedictis

Mentor(s): Drs. Heather Schock and Yvonne Franco

27. Enhancing Decoding: The Impact of Experiential Learning in Phonics

This study examines how a pre-service teacher incorporated experiential learning to improve first-graders' decoding skills. Research on phonics and decoding explains the importance of hands-on activities to reinforce skills and keep students engaged (Reading Rockets 2024). Over a 14-week semester, this research methodology included data from picture-word blending, phonics bingo, spin and blend, and vowel star builder. Findings suggested that students increased their understanding and engagement of phonics and decoding when game-based learning was incorporated. This study is purposeful to educators because it emphasizes the importance of using experiential learning strategies to improve phonics instruction for English language learners (ELL).

Carolyn Case

Mentor(s): Drs. Heather Schock and Yvonne Franco

28. Active Learning in Early Literacy Instruction: Phonics

This study examines how a preservice teacher used data-driven interventions to support kindergarten students in building foundational literacy, specifically focusing on sound-to-letter correspondence through active learning and gamification. Research on game-based learning indicates that gameplay can enhance student engagement, motivation, and social-emotional development, while also improving focus and attention, particularly for struggling learners (Nguyen, 2021). Over a 14-week semester, four strategies—Clipping the Beginning Word Sound, Letter Sound Hunt, Alphabet Bingo, and Sorting Sounds—were implemented to support phonics instruction. Findings suggest that these active learning and gamification techniques resulted in strong student engagement and mastery of key literacy concepts, facilitated by tactile, structured, and supportive activities. This study underscores the importance of using individualized assessments and research-based strategies to foster effective active learning and gamification in early literacy instruction.

Julianna Buli

Mentor(s): Drs. Heather Schock and Yvonne Franco

29. Improving a Reader's Self Efficacy and Oral Reading Confidence

This study examines methods a preservice teacher utilized to investigate a student's deficit in oral reading confidence and ways to improve their overall attitude towards reading, while mitigating reading anxiety. Research indicates that self-efficacy is malleable, and when two or more interventions are applied, the impact on learners' success is larger, with potential to significantly alter efficacy (Unrau et al. 2018). Four strategies were implemented throughout the course of a 14-week semester, including Crazy Emotions, Poem Artiste, Escape the Room and Dream Vacation. Findings suggested that by tailoring to student interests and executing a variety of activities week to week to carry out repetition of oral reading, student's self-efficacy and confidence greatly improved overtime. This study is imperative to educators because it demonstrates that a student's self-efficacy is malleable, but only if there is effort and engagement from both the teacher and student, therefore, recognizing the importance of implementing explicit, intentional interventions.

Brianna Bonello

Mentor(s): Drs. Heather Schock and Yvonne Franco

30. The Importance of Engagement in Increasing Blending Skills

This study examines a preservice teacher's use of experiential learning activities to develop her English Language Learner's ability to blend sounds in Kindergarten, and drive instructional interventions. Research maintains that consistent ability to blend words improves phonological awareness and decoding performance (Webber, et.al. 2024). Highlighting the significance of blending-focused, kinesthetic activities, including physically breaking down and combining letter sounds, helps English Language Learners better grasp sound units within words. Four methods were employed over a 14-week semester including, Phonics Photo Chart, Phonics Poetry Pen, Phonics Change-A-Word, and Phonics Word Building. Findings suggested that the English Language Learner built a deeper understanding of blending when participating in interactive, kinesthetic activities. This study is imperative to educators because it indicates the importance of using experiential learning to drive instruction for English Language Learners.

Analisa Martino

Mentor(s): Drs. Heather Schock and Yvonne Franco

31. Using Gamified Instruction to Improve Reading Proficiency

This study examines methods a preservice teacher applied to support a third grade learner, identified as an English Language Learner (ELL), to develop his reading proficiency. Research indicates that many ELLs have a literacy background in their primary language that can support them as readers in a new language. Furthermore, research recommends the use of explicit vocabulary instruction including providing exposure to a word in multiple forms, and providing examples of its use in phrases, idioms, and usual contexts (Calderón et al. 2011). Four strategies were implemented throughout the course of a 14-week semester, including Homophone Go Fish, Synonym Bingo, Synonym and Antonym Dominos, and Morpheme Sort. Findings suggested that the ELL built a deeper understanding of more advanced vocabulary when participating in gamified activities. This study is imperative to educators because it indicates the importance of using gamified activities to drive advanced vocabulary instruction for ELLs.

Madison Parker

Mentor(s): Drs. Heather Schock and Yvonne Franco

32. Improving Phonemic Awareness Using Gamification

This study explores how a preservice teacher used gamification strategies to enhance an English language learner's phonemic awareness and fluency skills. Research explains that gamification can enhance student engagement by transforming lessons into interactive experiences. By earning points and setting personal learning goals, students become motivated through a self-directed journey, which leads to greater content mastery (McCarthy, 2021). Over a 14-week semester, strategies such as Blend and Digraph word cards, Roll and Read Digraph, Diphthong Bingo, and Crazy Cards were applied. Findings suggested that gamification increased engagement and promoted skill mastery through repetition and review, even as standardized assessments failed to fully capture this growth. This study is critical to educators because it shows the importance of including games and active learning experiences in the classroom to promote student engagement and growth.

Sophia Garces

Mentor(s): Drs. Heather Schock and Yvonne Franco

33. Multi Sensory Learning to improve Phonological Awareness

This study examines multi sensory methods a preservice teacher used with their English Language Learner to develop her phonological awareness, with a focus on blending one and two syllable words. Research on whole body learning explains how through movement and active participation, students' letter sound correspondence and overall phonological awareness can improve (University of Copenhagen, 2022). Four strategies were applied in this study, including Letter Flash, Backpack phonemes, Onset and Rime blending, and Unlock the Codeword, over the duration of a 14-week semester. Findings indicate the student maintained engagement when he was actively participating in multi sensory activities, and enjoyed activities where he needed to move things around and felt challenged. This study is imperative to educators because it shows the importance of using multi sensory activities to improve phonological awareness.

Emma Robbins

Mentor(s): Dr. Heather Mason

34. Population dynamics of lined seahorses using mark-recapture

Seahorse National Park's Sweetings Pond is an anchialine system, a saltwater lake fed by the ocean through the ground, located in Eleuthera, The Bahamas. This habitat is home to an isolated population of lined seahorses, *Hippocampus erectus*, that exhibit nocturnal behaviors and are morphologically distinct. To conduct a mark-recapture study in the southern end of the lake, a 25m x 25m grid broken into 5m x 5m cells was established and sampled thirteen times between August 2018 to March 2020. Each occasion consisted of a daytime georeferenced marking event with seahorses being photographed, marked with individual heterogeneity using elastomer tags with a mean resampling time of 51(9.5) days between occasions. Analysis will be presented on the first five recapture events, 111 individuals were marked and . Identification of individuals through a combination of recapture confirmation using the unique tag codes on each seahorse, along with variation in facial features and body patterning, will strengthen capture histories for Mark's recapture model and habitat usage analysis. Population estimates generated from the Mark model and individual seahorse movement data are essential components for the development of Seahorse National Park's management plan and the vital conservation plan for this Bahamian seahorse population.

Rose Gaetano
Mentor(s): Dr. Heather Mason

35. Testing the Use of Unique Patterning for Photographic Mark-Recapture

Mark-recapture models estimate population sizes based on recapture rates of physically marked individuals. Another method called photographic mark-recapture (PMR) utilizes unique body patterning on the animal, rather than tags, to identify individuals. The PMR technique was tested on two syngnathid species, the Gulf pipefish (*Syngnathus scovelli*) and the lined seahorse (*Hippocampus erectus*) using elastomer tags as a positive control. In the Tampa Bay Gulf pipefish population, site specific marks solidified that lined facial patterning in Gulf pipefish is unique and can identify individuals, along with iridescent banding present only in females. The lined seahorse population in Sweeting's Pond is also sexually dimorphic and the seahorse's individual specific elastomer tags identified that the dotted facial patterning on the *H. erectus* could be used to individually identify males and females. While programs like Wild-ID and I3S can automate PMR matching in species with high contrasts like the lined seahorse, they could not be applied to the low contrast patterning in Gulf pipefish so visual matching was needed. By using these PMR techniques to create an individual's capture history, we can estimate the population sizes and more accurately understand the movement and behavior patterns of a species to manage their populations.

Ryleigh Wenker
Mentor(s): Dr. Willie Leung

36. Running Wild: Physical Activity and ADHD – Keeping Up with Kids with Varying ADHD Severity

Introduction: Children are recommended 60 minutes of Physical Activity (PA) daily as it benefits health. However, it could be even more beneficial to children with ADHD as it can enhance the ability to focus and relieve stress. The purpose of this study is to investigate the effect of ADHD severity on adherence to physical activity guidelines in children. Methods: An analysis utilizing the 2019-2023 National Survey of Children Health where children under 18 were classified into four groups, without ADHD, mild ADHD, moderate ADHD, or severe ADHD. Parents/guardians reported the participants weekly PA levels, where if the participants engaged in at least 60 minutes of at least moderate intensity PA every day for a week, they were considered meeting the PA guidelines. Logistic regressions were performed to examine the likelihood of meeting PA guidelines among the different groups. Results: A total of 144318 children with 88.25% of children without ADHD, 5.11% with mild ADHD, 5.14% with moderate ADHD, and 1.50% with severe ADHD were included. It was found that children with mild (OR = 0.81, $p < .05$) and moderate ADHD (OR = 0.79, $p < .05$) were less likely to meet the guidelines compared to children without ADHD. However, the likelihood of meeting the guidelines were not statistically significantly different between children without ADHD and with severe ADHD ($p > .05$). Conclusion: Children with ADHD regardless of the severity were less likely to meet PA guidelines when compared to children without. Targeted interventions are needed to promote PA among children with ADHD.

Jovanna Patino-Murillo
Mentor(s): Dr. Willie Leung

37. Comparison of PA level among children with ASD and Hispanic Background

Introduction: Studies have explored how various physical activity (PA) levels impact children's health among different ethnic groups. However, there is still a shortage of literature examining how different neurodevelopmental conditions, such as autism spectrum disorder (ASD), influence physical activity in children from diverse ethnic backgrounds. Purpose: To investigate the level of PA engagement between Hispanic and non-Hispanic children with and without ASD. Methods: This study analyzed the 2016-2023 US National Survey of Children's Health data. Guardians reported their children's ethnicity and ASD diagnosis. They also reported how often their child was physically active, from zero to seven days. We used ordinal logistic regression to see how PA frequency relates to ASD diagnosis and Hispanic status. Results: The study comprised 208,792 participants, with 96.8% (95%CI [96.4, 97.4]) not diagnosed with ASD and 3.1% (95% CI [2.6, 3.6]) diagnosed with ASD. The ordinal logistic regression indicated that children with ASD (OR=0.49, 95% [0.45, 0.54]) and those from Hispanic backgrounds (OR=0.70, 95% [0.66, 0.73]) were significantly less likely to engage in more days of PA compared to non-Hispanic children without ASD. Nonetheless, the interaction between ASD and Hispanic status (OR=1.27, 95% [0.87, 1.84]) did not demonstrate a statistically significant effect. Conclusion: Hispanic children and those diagnosed with ASD are less likely to engage in PA.

Johanna Patino-Murillo
Mentor(s): Dr. Willie Leung

38. Effect of Hispanic Ethnicity and ADHD on PA Levels among Children

Introduction: Children with attention deficit hyperactivity disorder (ADHD) are less active physically. There is limited literature on the intersectionality of ADHD and ethnicity affects the physical activity (PA) of children. Purpose: To compare weekly PA between the intersectionality of Hispanic ethnicity and ADHD diagnosis. Methods: Secondary data analysis performed using the 2016-2023 US National Survey of Children's Health guardians reported the Hispanic ethnicity and ADHD diagnosis of their child(ren) along with their weekly PA levels (0 days, 1-3 days, 4-6 days, and 7 days). Ordinal logistic regression comparing the weekly PA levels of Hispanic and non-Hispanic children with and without ADHD was performed. Results: A total of 207,970 children were included in the analysis, including 12.1% (95% CI [11.8, 12.4]) Hispanic children with ADHD and 8.45% (95% CI [7.81,9.10]) non-Hispanic children with ADHD. The ordinal logistic regression indicated that children with ADHD (OR = 0.76, 95% CI [0.72, 0.80]) and Hispanic ethnicity (OR = 0.70, 95% CI [0.66, 0.74]) were less likely to participate in higher weekly PA. The effect of the observed interaction between Hispanic ethnicity and ADHD diagnosis was not found. Conclusions: Hispanic children and children with ADHD participate in less physical activity each week due to different barriers. Efforts need to improve in promoting physical activity in these groups.

Anthony J. Mercure
Mentor(s): Dr. Khyam Paneru

39. Predicting Duration of Insurance Complaints

Insurance disputes are a notable area of concern, affecting both consumers and the regulatory bodies tasked with enforcing varying insurance industries' compliance. This investigation presents a regression analysis of complaint duration in insurance sectors, leveraging complaint data from the Texas Department of Insurance (TDI) compiled over the last 12 years. Our study includes records of complaints lodged against insurance entities, including licensed individuals and companies. Our analysis is framed around understanding factors influencing complaint resolution times, aiming to explore potential predictors, including insurance coverage types, respondent types, and previous complaint histories. We employ multiple linear regression to examine how these factors influence the duration of complaint resolution. To enhance model reliability, diagnostic tests were conducted, and transformations on some variables were applied, with some outliers and influential observations removed to ensure more robust predictive capabilities. This analysis highlights the complex dynamics within insurance complaint resolution processes, suggesting that targeted regulatory measures could improve response efficiency. This examination contributes to the field of public policy and consumer protection, offering data-driven recommendations to refine complaint management strategies and enhance consumer protection and satisfaction within the insurance industry.

Aleksandra Levin
Mentor(s): Dr. Emily Durkin

40. Comparison of Parasitic Infection Prevalence and Diversity Amongst Puppy and Adult Dogs

The objective of this study was to observe differences in prevalence and diversity of parasites between two groups: puppies and adults, specifically in dogs at Mercyful Animal Shelter. Prior research has shown that puppies are more susceptible to parasitic infections, such as heartworm, largely due to incomplete vaccinations and behavioral factors. Puppies often exhibit puppy behavior, including digging around in the environment along with soil ingestion and interaction with contaminated surfaces and environments, increasing their risk of exposure to parasites. Animal shelters have a greater risk of exposure due to frequent parasite presence from other dogs as well as potential hygiene challenges. To analyze parasitic infection, fecal samples from both puppies and adult dogs were collected and examined using Sheather's sugar flotation technique. Sheather's sugar flotation is a method optimized to separate parasitic eggs and larvae from other fecal matter by bringing the parasitic organisms to the surface of the test tube. This technique enables visualization of parasites under a microscope for examination. Our findings confirmed our hypothesis that puppies had a higher prevalence and diversity of parasites in fecal samples compared to adult dogs. These results exhibited the importance of the need for preventative care of dogs in shelter environments to optimize health and hygiene.

Trevor Sandler
Mentor(s): Dr. Haydn Rubelmann

41. Microbacterium sp. strain JC787 isolated from student's iPhone 15 Pro

Mobile phones, vital in modern life, are reservoirs for microbial contamination. This study examined the microbiome of a mobile phone screen, hypothesizing similarities to the owner's hand microbiome. Previous research showed that mobile phones harbor diverse microorganisms, including *Staphylococcus aureus* and *Escherichia coli*. Samples were collected from a phone screen at the University of Tampa and cultured on nutrient and selective media. Six isolates were grown, with one (NA1) selected for further study. Gram staining showed NA1 as gram-negative with rod-shaped morphology, but DNA sequencing identified it as a *Microbacterium* species, typically gram-positive. Biochemical tests revealed positive oxidase and coagulase activity. Antibiotic susceptibility tests indicated resistance to penicillin and chloramphenicol, but susceptibility to vancomycin and tetracycline. DNA sequencing through the NCBI BLAST database suggested *Microbacterium* sp. strain JC787 as the closest match, although the percent identity was below the confirmation threshold. Discrepancies between gram staining and DNA results suggest NA1 may be gram-variable, or its identification as *Microbacterium* is uncertain, in which the microbe could contain non-identical 16S rRNA genes invalidating the PCR sequence. This study highlights mobile phones as potential reservoirs of pathogenic microbes. Future work should involve advanced sequencing techniques to confirm microbial identities and assess pathogenicity.

Meghan Schreck
Mentor(s): Dr. Haydn Rubelmann

42. Starting Small in Sports: Microbe Isolation in Athletic Training Facilities

Athletic training facilities, particularly locker room showers, are high-risk environments for microbial contamination due to constant humidity and high foot traffic. *Staphylococcus aureus*, especially the methicillin-resistant strain (MRSA), is a common pathogen found in such spaces, transmitted via direct skin contact or contaminated surfaces. This study aimed to isolate and identify MRSA from a public shower floor in the University of Tampa's athletic facility to assess its prevalence and antibiotic resistance. Samples were collected from the shower drain and cultured on Nutrient Agar, Brain Heart Infusion, and Potato Dextrose Agar. Colony identification involved gram staining, biochemical testing, and DNA analysis through PCR, gel electrophoresis, and NCBI BLAST. The bacteria's antibiotic resistance was assessed using antibiotic susceptibility testing. Results indicated that the isolated colonies were gram-positive, catalase-negative, and coagulase-positive, with resistance to sulfamethoxazole but susceptibility to other antibiotics. However, the biochemical and genetic analysis suggested that the isolate was likely a *Streptococcal* species, not *Staphylococcus aureus*. These findings highlight the importance of precise microbial identification in athletic facilities, particularly in light of emerging antibiotic resistance.

Sebastian Tardieu
Mentor(s): Dr. Khyam Paneru

43. Predicting Hurricane Impact Strength using Linear Regression

Tropical cyclones (TCs) are classified as the most costly weather event impacting the US. NOAA reports that on average, each Hurricane costs the US billions of dollars worth of damage (NOAA). Hurricane destruction and danger is directly linked to its intensity upon landfall. Landfall intensity is a difficult metric to predict, because it relies on climatic conditions that vary on annual and interannual timescales. Quantifying storm traits that relate to strong landfall intensity will improve prediction of hurricane impacts and minimize economic and social loss. Our study implements linear regression analysis to understand what hurricane components have the highest influence on landfall intensity. Unfortunately, observed records are limited, and prevent robust statistical analysis. As a function of this, we utilize synthetic storm data, generated by hurricane experts. These tracks are simulated theoretical hurricane events generated from physics-based computational models. Synthetic storm tracks are often used in academia and risk prediction because they allow for statistical analysis without the limits of the observed data. Using synthetic TC track in a linear regression analysis, we find the lowest recorded pressure, landfall longitude, and month of occurrence have the highest influence on landfall intensity.

Sebastian Tardieu
Mentor(s): Dr. Binod Rimal

44. Forecasting Macroeconomic Trends via Machine Learning Models

Forecasting macroeconomic trends is challenging due to the intricate relationships among volatile and noisy factors. Their nonlinearity adds further complexity to making accurate predictions. However, the increasing accessibility of information and computational power presents an opportunity to capture vast amounts of data and build robust models. This study implements various machine learning and deep learning models to forecast macroeconomic trends, addressing these challenges and leveraging these opportunities. A diverse set of input features was selected to represent all sectors of the economy. The techniques implemented identify patterns from the input data to extract key features and predict trends, classifying the economy as being in a period of either recession or growth. A thorough process of model building, hyperparameter tuning, and performance evaluation through various classification metrics was conducted. Out of eight machine learning and deep learning models, the Random Forest model outperformed all others, achieving an F1-score of 98.34% and an accuracy of 96.73%. Notably, all the models demonstrated relatively high accuracy, underscoring the effectiveness of our approach in forecasting macroeconomic trends with precision and reliability.

Grace Ferguson
Mentor(s): Dr. Michael Middlebrooks

45. Analysis of Macro-invertebrate Populations in Caulerpa and Halodule

Seagrass meadows provide vital ecosystems for marine biodiversity, hosting diverse macro-invertebrate communities that are integral to the health and functioning of coastal environments. However, seagrass beds are increasingly threatened by anthropogenic activities leading to widespread declines in their extent and health. In recent years, the macroalgae *Caulerpa* has been observed colonizing the empty spaces left by dying seagrass, potentially altering the ecology of these seagrass beds. This study investigates the differences in macro-invertebrate communities associated with the green macroalgae *Caulerpa prolifera* and the seagrass *Halodule wrightii* in an effort to compare their ecological roles and the diversity they support. Through field surveys and sampling, macro-invertebrates were collected from both habitat types from the same seagrass bed in Old Tampa Bay in January 2023. Preliminary results show variation in species composition, abundance, and diversity between the two species. Patches of *H. wrightii* display a higher density in all major invertebrate taxa collected than *C. prolifera* but both have a similar diversity. In areas where *Caulerpa* becomes the dominant form of submerged vegetation in Tampa Bay, it becomes crucial to gain a thorough understanding of how this alga is being utilized by various species. Due to *Caulerpa* supporting a level of species diversity comparable to that of *Halodule*, this suggests the transition from *Halodule*-dominated meadows to *Caulerpa*-dominated habitats is not resulting in a loss of diversity. Although species richness may not be at risk, there is a concern for the decreased abundance of macroinvertebrate taxa in *Caulerpa* compared to *Halodule*. More research is required to determine patterns of species richness and abundance between *Halodule* and *Caulerpa*.

Kylie Rubino
Mentor(s): Benjamin U. Marsh

46. Awareness of Your Dating Status Enhances Memory of Relatively Attractive Faces

In a previous analysis, highly attractive faces were remembered worse than faces average in attractiveness and low in attractiveness. We suspected that the symmetrical similarity among attractive faces made them more difficult to distinguish from one another. While faces lower in attractiveness have more unique facial features. However, what if you change the purpose behind studying each face? We suspect that making participants aware of their dating status will change how faces are processed and remembered. A total of 295 participants were randomly assigned to two groups: a dating prime group where participants were asked about their relationship status and a control group where no priming question was asked. Afterwards, they studied 48 faces of various racial backgrounds evenly split among high-attractiveness, average-attractiveness, and low-attractiveness. There was also an even number of male and female faces. A recognition test was then conducted involving the faces previously studied, and 48 new faces. For each face, participants indicated whether they remembered seeing the face during the study phase. In short, when not aware of their dating status, participants remembered low-attractiveness faces best. However, when made aware of their dating status average-attractiveness faces were remembered best, $F(2, 292) = 5.238$, $p = .006$, $PES = .035$.

Cela Rivera
Mentor(s): Benjamin U. Marsh

47. Visual Scanning Behaviors for Racially Ambiguous Faces are Impacted by Racial Context

We have poorer memory for racial outgroup faces than racial ingroup faces (i.e., Other-Race Effect). Faces difficult to racially categorize (Low Ethnic Typicality) are processed better than racial outgroup faces that are high in ethnic typicality. Racial outgroups face Low in ET lose their memory advantage when grouped with their respective high ET faces (results from a previous LCC Lab study). While studying faces, participants' visual scanning patterns for each face was recorded using an eye tracker. In line with the memory results, we expected that visual scanning patterns for racial outgroup faces low in ET will noticeably differ based on the racial context (group with respective High ET faces or with other Low ET faces) in which the faces are presented. Our analysis of visual fixations showed that when low-ET faces were presented with other low-ET faces, participants directed more visual attention to the nose and mouth and less to the forehead compared to high-ET faces and the low-ET faces grouped with high-ET faces, $F(6, 492) = 6.21, p < .001, \eta^2 = .070$. These findings suggest that the racial context of low-ET faces impacted racial categorization process and thus visual scanning patterns and explain, at least partially, improved memorability.

Shreya Govindaraj
Mentor(s): Dr. Willie Leung

48. The Benefits of Weight Training for Independent Living among Young Adults between 18-25 years old: 2015-2019 BRFSS

Independent living (IL) involves determining where and with whom one lives while engaging in the community's social, economic, and cultural life. Those who find it difficult to live by themselves without help are considered to be experiencing IL disability. Physical activity has a positive effect on IL, but there is limited literature on the effect of weight training (WT) on IL disability among young adults. This study examines the association between IL disabilities and engagement in WT among young adults aged 18-25. Data from 2015-2019 of the Behavioral Risk Factor Surveillance System were used. Participants self-reported their frequency of WT per week and were classified as either having or not having an IL disability based on their ability to perform activities such as shopping alone or visiting the doctor alone. Logistic regressions examined the association between WT frequency and IL disability. A total of 1,309,740 participants were included, with 95.81% not experiencing IL disability and 4.19% experiencing IL disability. The average WT frequency was 2.12 times per week. Increased WT was associated with a lower likelihood of having an IL disability (OR=0.90, 95% CI [0.86, 0.94]; aOR=0.95, 95% CI [0.91, 0.98]). WT can positively improve IL in young adults, who should be encouraged to engage in WT frequently.

Anna Stefano
Mentor(s): Dr. Willie Leung

49. Comparison of MVPA between College Students who Users and Non-Users of Consumer-Graded Wearable Devices: Preliminary Analysis

The purpose of the current study is to compare the physical activity (PA) levels between college students who use consumer-graded wearable devices (WD), like Fitbit and AppleWatch, and those who do not, while specifying if they monitor their PA. Three groups were divided amongst the participants on their reported usage of WD: not using WD (n= 9), using WD but not tracking PA (n = 2), and using WD and tracking PA (n = 7). PA levels were measured using a research-graded triaxial accelerometer that participants wore on their right wrist for seven days. The accelerometer measured vector magnitude and minutes spent in moderate to vigorous intensity physical activity (MVPA) as defined by Troiano cut points and were compared using ANOVA. Among the participants, the average MVPA was 1504.73 ± 276.75 minutes, with an average vector magnitude of 15539298 ± 2081054 . The analyses found no statistically significant differences in MVPA ($F=0.42$, $p=.67$) and vector magnitude ($F=0.27$, $p=.77$) between the three groups. This exploration proposes that using a WD and monitoring PA might not promote PA in college students in day-to-day affairs. Upcoming research may focus on finding approaches to take advantage of using WD for PA in this population.

Megan Ryan
Mentor(s): Dr. Willie Leung

50. Empowerment Through Exercise: Breaking Barriers with Weight Training for Self-Care Abilities: 2015-2019 BRFSS

Self-care disabilities (SCD) cause limitations in activities of daily living (ADL). Evidence suggests that participation in weight training (WT) is beneficial to performing ADL. However, current literature primarily focuses on older adults. Therefore, this study aims to address this gap by examining the association between SCD and meeting the current WT guideline of twice per week among young adults. 54927 young adults between the ages of 18 – 25 years old living in the US were included from the 2015-2019 Behavioral Risk Factor Surveillance System. Participants were considered to experience SCD if they reported having difficulty dressing or bathing. Whether the participant met the WT guideline was based on the participant's response to the frequency of WT per week. If participants engaged in WT at least twice per week, they were considered to meet the guidelines. Unadjusted and adjusted logistic regressions examined the relationship between WT and SCD. Among the participants, 0.65% (95% CI [0.54, 0.77]) of participants reported having SCD. For meeting WT guidelines, less than 50% of participants met the WT guideline, with only 48.13% (95% CI [47.41, 48.85]) of participants without SCD and 35.86% (95% CI [26.75, 44.97]) of participants with SCD met the guidelines. However, meeting the WT guideline was associated with a decreased likelihood of having a SCD (OR = 0.60, 95% CI [0.40, 0.89]); aOR = 0.75, 95% CI [0.49, 1.17]). However, only the unadjusted logistic regression was found to have a statistically significant association. Similar to older adults, WT can positively impact an individual's ability to perform ADL among young adults. More specifically, engagement in WT is suggested to decrease the likelihood of SCD among young adults. Hence why young adults should be encouraged to engage in WT at least twice a week.

Emma Hoover
Mentor(s): Dr. Sarah Orban

51. The Impact of Sexually Oriented Modern Media On College Hookup Culture

Hookup culture is a set of social norms, behaviors, and attitudes that normalize casual sexual encounters among young adults. This research study assessed how personality traits, sensation-seeking behaviors, demographic variables, and sexually oriented media exposure predict the endorsement of hookup culture (EHC) and number of hookup partners among 137 college students. Based on prior research, we hypothesized that high levels of disinhibition, neuroticism, and extraversion; low levels of conscientiousness, openness to experience, and agreeableness; and exposure to sexually oriented media would predict EHC and hookup partners. Our results indicated that high levels of extroversion and low levels of conscientiousness significantly predicted the number of hookup partners. Low levels of conscientiousness also predicted EHC. In addition, high levels of disinhibition significantly predicted the number of hookup partners and EHC. Furthermore, sexual orientation, gender, and alcohol use were significant predictors of EHC and hookup partners, but religiosity, age, and relationship status were not. Unexpectedly, exposure to sexually oriented media did not predict EHC or number of hookup partners. These conclusions show the significance of personality, sensation-seeking traits, and demographic factors over the exposure to sexually oriented media impacts on endorsement of hookup culture and number of hook up partners.

Brianna Torres
Mentor(s): Dr. Sara Festini

52. Losses Lessen Proactive Interference Even With Rehearsal Disruption

Proactive interference (PI) occurs when old information impairs new learning. Prior research in value-directed remembering has indicated that people are more likely to remember information that has a high-value assigned to it rather than a lower-value. In the current research, articulatory suppression was required to determine whether disrupting verbal rehearsal impacts memory prioritization and PI. We hypothesized that people would be more likely to remember words assigned positive point values (+5) rather than negative point values (-5). We also hypothesized that there would be increased PI for recently-learned high-value words compared to recently-learned negative-value words. A third hypothesis was that articulatory suppression would increase overall response times and accuracy for both high- and negative-value words. Data collection for this study was conducted with undergraduate students in the UTampa Memory Lab. Participants studied high- or negative-valued words presented on a computer screen, while performing articulatory suppression. Participants completed a working memory item-recognition task and a surprise long-term memory recognition assessment that required them to remember words from the previous trials, regardless of point value. Results revealed that negative-cues reduced PI within working memory and marginally impaired long-term memory. Yet, significant PI was still observed for positive- and negative-valued information.

Noelani Segree

Mentor(s): Dr. Meredith Clements

53. Few Places to Learn, Few Spaces to Talk: Reproductive Health Literacy Among Gen Z Women

The present study investigates reproductive health literacy among Generation Z women aged 18-29, focusing on their understanding of fertility and future (in)fertility. Despite the peak fertility window for women occurring in their late teens to early 30s (Delbaere et al., 2020), existing research suggests that young women lack knowledge about reproductive health (Martins et al., 2023). This study addresses that gap by examining knowledge levels in reproductive health decision-making and future aspirations and goals. Participants were administered a modified version of Kudesia et al. (2017), Fertility & Infertility Treatment Knowledge Score Survey (FIT-KS). Results suggest a gap in knowledge specific to fertility and reproductive health among Gen Z women. Few spaces encourage dialogue specific to fertility. Places where dialogue does occur, such as doctor's offices, are still perceived as "uncomfortable" with more than half of participants "never" or "rarely" discussing reproductive health with their doctor. Due to many respondents believing they are not fully informed about their reproductive health and fertility, subsequent research should further highlight the need for further reproductive health education along with open discussions to reduce stigma.

Alexandra Kimbiris, Ava Kunis, and Kruti Shah

Mentor(s): Dr. Emily Durkin

54. Molecular Identification of Parasitic Nematodes Recovered from a Tampa Bay Red Grouper

This research aimed to identify the species of parasitic nematodes within a single Red Grouper (*Epinephelus morio*), a highly valuable fish collected from Tampa Bay. A necropsy of the Red Grouper revealed tens of small roundworms in the intestines of the fish. DNA extraction, PCR, sequencing, and BLAST analyses confirmed the parasitic nematodes.