



URCAD
UNIVERSITY RESEARCH AND
CREATIVE ACHIEVEMENT DAY

Oral Presentations – Morning Session 3

Location: Tower Room 134 – Student Center

Time: 9:20 AM – 12:00 PM

Power of student voice in a writing classroom

Elizer Tirado

English

Advisor: Dr. Jacob Werblow

The idea of the presentation is how students how creative writing and poetry can be used as a form of expression and of culture within a classroom. Poetry and their own writing (creative writing) provides a powerful and accessible way to for students to engage with various social issues while focusing on the students voice, tone. imagery, etc while giving students a chance to reflect on their own personal identity/belonging within the world and classroom. The idea is to move from traditional approaches to poetry and instead use it as a meaningful way for students to understand literature and their social world.



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Second Chance, By Design: Translating Policy into Practice?

Tyler Nguyen
Graphic Design

Advisors: Dr. Jeanne Criscola and Dr. Peggy Bloomer

This presentation discusses the creation of the Second Chance CT Website, which was made in a collaboration between the department of Graphic Design and Criminal Justice. The website provides employers with the resources to help bring in reformed criminals into the workplace. As a student designer, I was able to work alongside a classmate and my respective project mentors, Jeanne Criscola and Peggy Bloomer to create the website with oversight from Professor Heidi Hughes and Stephen Cox. This presentation also highlights the importance of cross-department collaborations and how it can provide students with client based work experience, particularly within the design department. Website Link: <https://ctbusiness-secondchance.org/>



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Evaluating the Effectiveness of Training and Development Programs for Student Workers at Central Connecticut State University

Skylar Rutka

Management- Human Resources

Advisor: Dr. Heidi Hughes

This independent study examined the effectiveness and continuity of learning and development programs designed for student workers across on-campus organizations. In addition to evaluating the effectiveness of these programs, the study aimed to identify their structure and the extent to which they support student employee growth and performance. Using a quantitative approach, data were collected through surveys administered to student workers at on-campus organizations at Central Connecticut State University. The Kirkpatrick model was used to generate survey questions. The survey gathered insights on whether training programs are mandatory or optional, participants' perceptions of program effectiveness, and their views on the level of institutional support, guidance, and available resources. Ultimately, the study identified high-performing training models and uncovered opportunities to enhance university support, thereby contributing to more effective and cohesive learning and development strategies for on-campus organizations.



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Comparing CT School Systems

Matias Monteiro, Noah Cable, Ryan Newberry, and Remy Rodriguez
Secondary-Ed History
Advisor: Dr. Jacob Werblow

My group and I are going compare and contrast different schools and school systems in Connecticut. Our findings will based on our placements in the teacher education program, highlighting the disparity in founding and representation for students across CT.



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Remote Sensing Bodies of Water from Satellite Image Data

Chris Albert

Computer Science

Advisor: Dr. Rafiul Hassan

Remote sensing involves training a deep learning model with satellite images to identify particular features on other satellite images. By replicating the object detection algorithm YOLOv26 in Python, I am utilizing remote sensing to highlight water bodies where they exist on a given satellite image. My goal is to achieve a highly accurate YOLOv26 model that can successfully extract water bodies from diverse environments and image qualities. The training set I used for my model is “Satellite Images of Water Bodies” from Kaggle. The dataset consists of Sentinel-2 satellite images, each containing water bodies, and black and white mask images (where a white pixel means water and a black pixel means no water) calculated for each image by the data owners. While research exists in this area already, I seek to show that YOLOv26 is a highly accurate methodology for remote sensing water bodies, even using RGB satellite images that have no additional channel data. I believe this work can be expanded in the future to identify freshwater in inaccessible areas. This will be increasingly important in a future of increasing water scarcity due to climate change.



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A Genetic Analysis of *Plethodon glutinosus* Populations East versus West of the Hudson River

Tianna Togninalli

Ecology and Environmental Science

Advisors: Dr. Michelle Kraczkowski and Dr. Dennis Quinn

The northern slimy salamander (*Plethodon glutinosus glutinosus*) is part of a contentious complex of 16 salamanders, the *Plethodon glutinosus* complex, described in 1989 by Herpetologist, Richard Highton. Based on the stark contrast in habitat requirements and use east versus west of the Hudson River, it is hypothesized that Connecticut slimy salamander populations will be genetically different or undescribed species in this complex. This research compares samples from east and west of the Hudson River in the States of Connecticut, New York, and Pennsylvania. Over 100 tail clip samples were obtained at 16 sample sites across these states during 2024 and 2025, DNA was extracted and mitochondrial locus *nd2* (NADH dehydrogenase 2) amplified at CCSU and sequenced via Eurofin genomics in Kentucky. Sequences were curated and analyzed to compare against each other and against complex samples available on GenBank. This study led to the discovery of a previously undocumented species of slimy salamander in Connecticut, the white-spotted slimy salamander (*Plethodon cylindraceus*) whose closest known occurrence is in Virginia and West Virginia, nearly 300 miles southwest of Connecticut. Documented at only three sites in extreme southwestern Connecticut, there is limited biogeographical knowledge on how this population came to occur in Connecticut.



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Turning a History of Exclusion into Inclusion through Language and Tutor Training in Writing Centers

Rachel Giroux

English Secondary Education

Advisor: Dr. Amanda Fields

While writing centers are typically viewed as and generally attempt to be open, accepting, and inclusive spaces for any student to go to, that is unfortunately not the case most of the time. In theory, this accessible concept appears logical because the history of writing centers reflects the primary focus being on remedial work and providing resources for students who need extra help. Based on these foundational ideas, it would make sense for writing centers to be geared towards all students who struggles for all reasons, but students with disabilities are rarely included in that ideal group. Because most writing centers are within the structure of schools and universities, they are subjected to and often perpetuate the same biases and institutional barriers that exist for students with disabilities in higher education. The question then is why, with the student-centered tutoring and individualized help that writing center tutors can offer, do writing centers retain the exclusive nature of the ableist systems they inhabit? This study analyzes inclusive language and tutor education as primary way to accomplish the goal of inclusivity in writing centers, as an overall attempt to slowly close the space between what writing centers aim to be like and what they actually are. There are multiple approaches can start shifting inclusion from a dream to a reality, and it starts with the language we use in writing centers and how we train tutors to approach their work.



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Assessing Students-Parents' Needs and Awareness of Services in Higher Education

Erica Dewey

Community Psychology

Advisor: Dr. Helena Swanson

This research aimed to understand the needs, experiences, and differences between college student-parents and non-student-parents. The study determined student-parents' childcare needs, facilitators and barriers to utilizing childcare services, and students' awareness of CCSU's campus childcare center. Since student-parents have more responsibilities outside of school, this study also measured sense of belonging, stress, food insecurity, and housing insecurity. Previous research indicates that college education is essential for upward social and economic mobility (Long, 2014). However, universities often fail to address the needs of an increasingly diverse student body, leading to additional barriers for nontraditional college students, especially student-parents (Mahaffey et al., 2015). With student-parents facing barriers such as role conflict, it is crucial for researchers to understand their needs and beneficial services to improve on-campus childcare and other supports (Ajayi et al., 2022; Navarro-Cruz et al., 2023). To gain insight into the services offered at CCSU's campus child care center and the student-parent population, the researcher partnered with the campus childcare center. Participants in this study included college students from CCSU, including student-parents and non-student-parents. Participants were recruited through their school email addresses, flyers, SONA, and word-of-mouth. Participants completed an online mixed-method survey through Qualtrics.