

Student-Faculty Scholarship Day Award Recipients

Dance

Tell Me if This is Funny: An Investigation of Humor Through Language and Dance
Katherine Goodell, Gwendolyn Jensen, Kellie Duncan, Rieka Toya, and Paul Ocampo

This dance utilizes language and movement in order to investigate the idea that humor is at someone else's expense. I choreographed the piece and integrated the skills from my English minor by writing text for my dancers to speak and for a slide show projected behind them. The dancers are telling embarrassing stories from their past, and while they are funny, the slide show is analyzing how they are victims of the joke. This then provokes thought of defining what is funny and why things are funny. I conducted personal research that started in the Spring of '07 for the Principles of Choreography class. Then as the piece progressed I studied the narrative aspects of jokes and applied them to the text. The piece was then performed in the Student Dance Concert: Breaking Bounds, December 2007 and was selected for the informal concert at the American College Dance Festival.

ORAL PRESENTATIONS

Agriculture & Biology

Using Plants to Remove Arsenic from Contaminated Water
Dallin Clark, Chelsey McKenna, Mckell Clark, Diana Heath, Stacie Meier, and Charlotte Pedersen

In Iron and Washington County there are several sources of water contaminated by arsenic level above the EPA standards. Since water is a scarce resource in this desert region it is important to find ways to clean the water. Plants are able to remove metals as well as organics from the environment by metabolism or storage in the vacuole. This project is interested in finding plants that are specific for removal of arsenic and would thrive in hydroponics in extreme desert conditions. Several plants, native as well as crops, have been tested and their ability to accumulate arsenic under extreme conditions will be discussed.

Art & Design

The Kolob Canyon Review
Stephanie J. Haven "Anie", Cesar Adan Bojorquez, Neil Womack, Katherine Goodell, Brittni Traynor, Trent Gurney, and Wynne Summers

The Kolob Canyon Review is a peer reviewed literary journal featuring the work of students, faculty, and alumni from Southern Utah University. Its purpose is to emphasize student learning in the production and dissemination of the journal, to provide a forum for writers and artists associated with SUU to publish their work and to have their work read by their peers, and to serve as undergraduate research, in that, it assists students in editing and designing a magazine as well as providing a collaborative effort between supervisors, mentors, and students.

Physical Science

Laminites and Dropstones in the Cambridge Argillite (Ediacaran) , Hewitt's Cove, Hingham, Massachusetts

Jessica Williams, Frederick Lohrengel, Jack Beuthin, and Mark McMenamin

Laminated Cambridge Argillite of the Boston Bay Group (Ediacaran) low-grade metasediments can be found in outcrop at Hewitt's Cove, Hingham, Massachusetts. These laminated sediments are finely graded layers 0.2 to 8 cm thick that are commonly interpreted in the literature as fine-grained turbidites (Stow sequences). Rhythmically laminated facies also occur that do not support a sediment-gravity flow interpretation. These rhythmites raise the possibility of sedimentation influenced by agents such as tides, waves, or wind. The Cambridge Argillite appears to consist of a subtle, but definite, mosaic of laminite facies that record multiple depositional processes, and perhaps multiple water depths.

Stratigraphy and Depositional Environment of the Enterprise Reservoir Middle Miocene Track-Bearing Sediments

Jared Brinton and Robert Eves

The mammal track site of Enterprise Reservoir (Hunt and Lohrengel, 2006) occurs within Miocene-age basin-filling sediments. The track site is positioned between the Ox Valley Tuff (13.5 Ma) and the tuff of Honeycomb Rock (11.9 Ma). Trace fossils and sedimentary structures suggest a hilly, wooded scrubland and open grassland environment proximal to a low energy body of water. Coarsening upward sediments, as well as distinct sedimentary structures, within the unit suggest a transition to higher energy deposition where fluvial deposits laterally interfinger with axial stream and lacustrine deposits.

Math & Engineering

TankBot Pool using a Microchip PIC

Tereasa Day, Colin Clark and David Ward

A Microchip programmable integrated circuit(PIC) was used to program a robotic tank to perform as an example for a robotic competition. The purpose of the competition was to create a robotic tank that would be able to detect objects placed on a table and push them off without the tank falling off the table. What makes this objective unique is that the user can not interact with the tank after the start button has been pressed to initiate the program. This requires the tank to be fully automated and not be

controlled by a remote control. By using infrared LEDs and receivers we were able to accomplish the task by taking different approaches and using different programs to attain the same objective.

Nursing & Psychology

Forgiveness, Empathy and Self-Esteem: A Relation to Pro-Social Behavior **Adrian Tinajero and Jeff Elison**

Undergraduates (n=31) completed the Interpersonal Reactivity Index, PANAS and Momentary Mood Scale after viewing one of two videos chosen to induce positive feelings related to comedy or forgiveness. They were then given an opportunity to behave pro-socially, with the hypothesis that witnessing forgiveness would motivate greater pro-social behavior. There was a significant effect on pro-social behavior by the forgiveness video. Also, there was a significant effect on pro-social behavior and age. There was not a significant effect on empathy by either video. However, there was an effect on feelings such as “strong”, “inspired”, “distressed” and “upset”. Witnessing forgiveness could increase the likelihood of acting pro-socially. More details pending.

POSTER PRESENTATIONS

Art & Design

A Research Project in Mask Performance **Meggan Steffensen and T. Anthony Marotta**

The effect of masks on a performer was examined through creating and using masks in a studio intensive acting class. The research shows the process of creating the mask, working with the mask, modifying the mask, and then recording the effect the modifications have on the overall performance and functionality for the performer.

Geology

Freshwater Fossils in a Shale Unit of the Upper Cretaceous Iron Springs Formation, Parowan Gap, Iron County, Utah **Sung-Hoon Kim, and Frederick Lohrengel**

The Parowan Gap area of Iron County Utah is dominantly freshwater facies of the Iron Springs Formation, (Upper Cretaceous). Lithologically, the Iron Springs is composed of interbedded sandstone and shale/mudstone. Molds of dinosaur tracks occur on the bottom of multiple sandstone layers. This study looks at small invertebrate and plant remains contained in one of the mudstone layers. Gastropods are both turreted and trochospirally coiled, and range from <1cm to >2cm tall. Pelecypods

are mostly clams and range from <1cm to >2cm long. Virtually all are crushed. In addition there are rhizolith fragments <1cm diameter by 3cm long plus leaf cuticle fragments that appear to be carbonized, suggesting remnants of a fire. What appear to be opalized stem fragments are also present. All of these fossils are indicative of a low-lying, freshwater coastal region.

Nursing & Psychology

Behavior-Specific Praise as an Intervention in the Classroom

Tiffany Leigh Scholes and Leslie N. Jones

This study examined the effects of behavior-specific praise (BSP) on decreasing disruptive behaviors by increasing desirable on-task behaviors in the classroom. Two elementary school teachers and five second grade students participated in the study. An ABAB design was used with the teachers implementing the intervention. Results suggest that students' disruptive behaviors decreased and on-task behavior increased when teachers applied BSP consistently.

Nutrition

Are Childhood Food Rules Linked to Young Adult Eating Behaviors?

Alicia de Wolfe and Matthew Schmidt

This study's purpose was to determine whether childhood food rules /experiences have an effect on young adult eating behaviors. A self-reported survey was completed by 299 students (42% male, 52% female), mean age 20.5, SD 3.95. Survey examined childhood food memories and a standardized eating attitudes test (EAT). The EAT is used to identify risks of developing an eating disorder where a higher score may indicate disordered eating. Results indicated a significant positive correlation ($p < 0.05$) with regard to a higher EAT score and being rewarded with food, receiving food rewards for accomplishments, being forced to eat disliked foods, being told that certain foods would make you fat, and emphasized being thin/dieting during childhood. Results suggests that certain childhood food rules /experiences effected present eating habits in this population according to their EAT score, thereby implying that certain food rules /experiences may play a role in the development of disordered eating.

Hydration Status of Collegiate Female Basketball Players at Southern Utah University

Kristina Peterson and Matthew Schmidt

Proper hydration is important for mental and physical performance. The purpose of this study was to examine the attitudes of collegiate female basketball players and coaches with regard to hydration and determine hydration status before practice, after practice, and 24 hours later. Ten athletes mean age 19.3 SD= 2.0 were recruited. Subjects followed their normal practice routine which lasted ~2 hours. Urine samples were collected. Urine specific gravities (USG) were measured to determine hydration status. USGs indicated athletes came to practice minimally dehydrated, left significantly dehydrated, and

returned the next day minimally dehydrated. Subjects and coaches were surveyed on the importance of hydration. Players and coaches viewed hydration as important. Players believed hydration effected performance more than coaches did. Players did not believe that their hydration status was adequate. These findings suggest that players feel that proper hydration is important and due to their inadequate intake would benefit from education.