

Research group works with heart



Submitted photo

The entire research group, lead by psychology professor Fredric Shaffer, poses outside Kirk Memorial. The undergraduate research group studies heart rate variability and biofeedback and how these can influence health and well-being.



Truman State truly is set apart from other universities by its focus on offering research opportunities to undergraduates that will contribute to their success in graduate studies or their industry of choice. These research opportunities include the Truman Center for Applied Psychophysiology.

Psychology professor Fredric Shaffer leads this research group, which currently includes about 60 students. Research the group does focuses on heart rate variability and biofeedback, and how these can influence health.

"We explore the mind-body relationship, with a focus on how we can positively impact our students and other adults' health," Shaffer said.

According to the American Heart Association, heart rate variability is the phenomenon with which one can knowingly

modify habits, such as breathing rate, to alter the time intervals between heartbeats. Heart rate variability is a teachable skill, and Shaffer said he hopes it could prove useful against health issues such as pain, anxiety and depression.

Not only did Shaffer say he thinks heart rate variability has medical applications, he said he thinks it can be used to improve the performance of individuals such as musicians and athletes.

Some of the main instruments used in psychophysiology and biofeedback research are the electrocardiograph (EKG), respirometer and the surface electromyograph (SEMG).

The EKG detects electrical conduction in the heart, the respirometer is a band that wraps around an individual's waist and measures breathing rate, pattern and depth and the SEMG measures the muscle activity while breathing.

Nearly 30 useful and significant measurements can be collected from these three instruments. There are numerous ways in which the research collected and analyzed can be presented and disseminated, Shaffer said.

Any research team member who wants to present at the Student Research Conference is able to, and this spring, up to 13 of Shaffer's students will attend and present at the Association for Applied Psychophysiology and Biofeedback (AAPB) conference.

The Truman Center for Applied Psychophysiology submitted four papers to be considered for oral presentations this year to the annual conference, and for the first time throughout the history of the research group, all four were accepted for these limited slots.

The ideal usage of the heart rate variability research would be in medicine, clinical psychology, and counseling psychology. For this to be accomplished, the research must be shared with a variety of professionals through attendance at conferences.

Shaffer said each year research abstracts are published by the journal "Applied Psychophysiology and Biofeedback." He publishes review articles that bring together some of the most important findings in the journal "Biofeedback", and includes some of the research group's findings in an electronic textbook he writes.

A research group as large as Shaffer's can conduct research on subjects already a

part of the research group, but Shaffer said he recruits subjects from his classes.

"The research is conducted on healthy undergraduates, which limits the generality of our research," Shaffer said. "There are valuable things you can learn from healthy students... between the ages of 19 and 24."

Because the field of heart rate variability is only a few decades old, Shaffer travels nationally and internationally to teach other professionals about the benefits of this phenomenon.

Junior Christopher Zerr, the research group's laboratory manager, will have the opportunity this spring to attend an international research conference in Venice, Italy, alongside Shaffer.

Zerr said he became involved with the research group when he entered Truman as a student, and he said the research experience has been invaluable.

"I think any time you can learn by doing, as opposed to simply reading about it in a classroom, is an indispensable experience," Zerr said. "I think that kind of active learning is really what graduate schools and employers want to see evidence of, and is more rare outside of Truman than most students realize."

Video for students gains buzz

BY GRACE BUECKENDORF
Staff Reporter

With more than 50 thousand views, what started as a fun project has gone viral.

"T-Pain Misses You" was shared and reshared by many Facebook and Twitter users. The video also was featured by Right This Minute and The Huffington Post. The featured star was none other than University President Troy Paino.

The video illustrated campus life when students left for winter break. With an empty campus, Paino, devoid even of his secretary, is left to his own devices. Paino rides a tricycle around the second floor of McClain Hall, wages battles with plastic army figurines, chews gum to deposit it on the "gum tree," and finally is left to roast marsh-

mallows on the "eternal flame" dejectedly to the tune of his own trumpet playing.

The video instantly received many views and caught the eye of the media, with RightThisMinute calling the following day for a Skype interview with Paino. Right This Minute profiles up-and-coming viral videos. At this moment, the video has been viewed a total of 55 thousand times.

"I did expect people to enjoy it and share it a lot because I knew it was going to be funny, but I didn't expect it to receive the wide coverage that it got," Todd Kuhns of ITS said. Kuhns served as the producer and director for the video.

When asked about the unexpected success of the video, Paino noted the video was only intended for the enjoyment of the students, not

a publicity stunt or an attempt to attract attention to the University.

"While we were making it ... There was no master plan for it to go beyond students," Truman State photographer Tim Barcus said.

Paino said his real intention for the video was to allow students to get to know him better. He said he thought it was important to make sure his presence is known throughout the Truman and Kirksville communities. The community is critically important to life of the University and Paino said he practices what he preaches and gets engaged in community.

"The most rewarding part of this job is the chance I get to interact with the students," Paino said. "This was a way to remind myself why I do the work I do. The videos are a chance to get to connect with students. I

can't get to know each and every one of them. I hope they get a chance to get to know who I am through this video."

The concept of clever videos for coming back is not a new one. Last year, as a spontaneous idea, Paino and his wife, Kelly, filmed a "Welcome Back" video intended for the students' enjoyment.

Due to the success of his 'Welcome Back' video, Paino notified Barcus and Kuhns during late October that he wanted to film another video for the 2013 winter break, Barcus said.

Barcus said several ideas were discussed, including one that had more "plotline." Barcus, Kuhns and Paino spent much of their planning time on a more intricate idea. As the first shooting day neared, Barcus and Kuhns received a call from Paino

who expressed more interest in a simpler video.

"The president wanted something where you didn't have to think too much, just watch and enjoy," Barcus said.

During filming, there were multiple obstacles to overcome. First, the basketball scene had to be finished before the women's game against Hannibal-La-Grange College.

Paino performed all of his own stunts, including riding the tricycle, which teetered off the fountain at one point.

Paino said he received much praise from his colleagues.

Despite the message of the video, Paino said he had a very busy break preparing for students to return.

"It's been a busy break... the video makes it seem like it wasn't, but it was pretty busy," Paino said.

"The videos are a chance to get to connect with students. I can't get to know each and every one of them. I hope they get a chance to get to know who I am through this video."

— Troy Paino,
University President

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