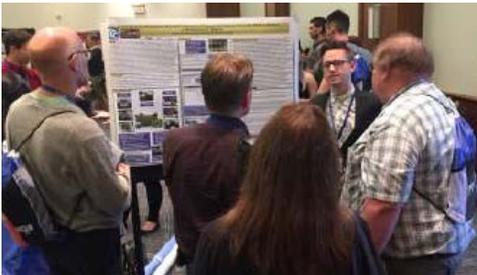


NATIONAL CONFERENCE ON UNDERGRADUATE RESEARCH (NCUR):

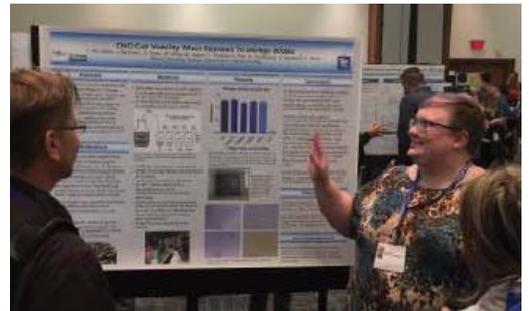
2017 REFLECTIONS ON MEMPHIS

Reflections from TCC Students Jacob Beckham and Anna Platt



Being able to travel to Memphis with the TCC faculty and present the research to over 4,000 students from around the country was a phenomenal experience. Not only was I able to gain more practice presenting my research in front of others I was also able to interact with other student researchers around the US and take in their experience and knowledge. Not to mention being able to present alongside research intensive universities and students that are working on their Master's as a community college student is a very gratifying. Overall, being sponsored by NCUR, getting to travel to a completely new city, and having interactions with the TCC professors and students has been a world opening experience for me. --**Jacob Beckham**

I want to thank everyone at TCC and particularly Dr. Dusti Sloan and all those involved in the Biotechnology program for making it possible for me to attend NCUR 2017. I would also like to show my appreciation to OK-INBRE for the grant that funded my travel. This trip was a wonderful learning experience. I loved presenting my poster at a national conference and seeing what other undergraduate researchers are discovering. I also enjoyed the opportunity to gather information on graduate programs at various colleges all over the United States. Thank you to my fellow travelers for making sure I got to experience Memphis BBQ as well. That was a treat! Educational travel events such as NCUR provide students like myself with experiences to support a competitive edge in future endeavors. I am grateful for all the hard work that TCC faculty have put in to help me succeed! You all are awesome! -- **Anna Platt**



Reflections from TCC Faculty and Staff

One of my favorite things about NCUR was that it included many different disciplines which allows students (and faculty!) to be exposed to material they may not have seen before.

I plan on having students present at NCUR next year as I think it will be a benefit for students to present their work and to see other student presentations. --*Chandra Carpenter*

I am extremely grateful to have had the opportunity to attend NCUR 2017; it was an incredible experience on multiple levels. I was very impressed by not only the quantity, but also the quality of the research that I saw being presented; undergraduate students most definitely can conduct substantive research! Moreover, I was very proud to watch as two bright and exceptionally talented students from TCC presented their work alongside and with equal effectiveness as students from some of our nation's major research institutions. I was especially thrilled to have the rare opportunity to explore and learn about research conducted outside of my own discipline. NCUR helped to broaden my vision of research by an order of magnitude, and I'm very excited about the prospect of engaging my students in multidisciplinary research right here at TCC. Perhaps some of my students will even be in a position to present their own findings at NCUR 2018! --*Neil Enis*

This conference and trip was a valuable experience to me in several important ways. Having the opportunity to interact with students and colleagues outside of the daily work environment allows for the sharing of ideas about pedagogy, teaching approaches, shared and varied experiences with students, and direct feedback from students about experiences in the classroom. The conference was particularly enlightening for me since I had limited expectations regarding undergraduate engagement with research. I gained a greater appreciation for the level and expectations of what students in their undergraduate career can accomplish. I was particularly curious to see the types of presentations and areas of study outside of the STEM fields and was very pleased to see students doing really excellent and engaging work in the fine arts, performing arts, and social sciences. Further encouragement came from the realization that students represented a wide variety of academic institutions from across the country and not just a select few, elite programs. I'm convinced that many of our students at TCC are in fact capable of producing the level of work found at the conference and I look forward to seeing increasing numbers of TCC students participate in such local, regional, and national events in the coming years. I am inspired to motivate my own students to strive for excellence and accomplish what even they may not have believed possible for their academic development. Thank you for allowing me to take part in this wonderful and thoroughly enjoyable opportunity. --*Rob Katz*

Traveling to NCUR 2017 was inspirational due to its multidisciplinary scope. I was able to see the types of research going on in humanities classrooms like my own literature and writing ones, as well as expose myself to the work of other fields. Because I take a multidisciplinary approach to my composition classes, it was helpful to see the academic conventions of fields in which my students major, so that I am better able to prepare them for their work in other classes, especially upper-level ones. I also enjoyed seeing our students exposed to the variety of research topics and methods revealed at this conference, including creative performance, and how it shaped their evolving mindset as scholars. Walking the University of Memphis campus was an important reminder of where I have been and where my students are headed, and bringing that mental picture into sharper relief in my mind will benefit my work in preparing students for that goal.

--*Susan O'Neal*

Attending NCUR was a great experience for me. The offerings of student research and faculty workshops were vast. The advantages of attending I believe include seeing what research students in your discipline are doing. I was particularly impressed with their knowledge and skills in conducting research as undergraduates. This tells me I need to be involving and pushing my sociology students more in conducting research whether they present at conferences or not. Secondly, if you are wanting to expand your knowledge about other disciplines and see how they are implementing student research there are several opportunities to do so. I was especially impressed with the offerings the conference had in the arts.

My plans for moving forward are to collaborate with a TCC psychology professor next spring where my class identifies and collects data on a social problem and the psychology colleague's class will analyze the data. We plan on our students working on this effort together - teaching each other the processes they have followed. I also will be revamping one of my courses to include testing knowledge and skills development focused on personal and social responsibility (institutional learning outcome). My plan is to conduct pre-post testing; and curricula changes/assessments. I hope to include 1-2 students in this project, maybe using work study students? I am still in the process of working out details.

Lastly, I am looking for ways in which to involve students in research projects in the Fall so that they can apply to present their findings at NCUR next spring, especially because NCUR will be held at UCO in Edmond, Ok. It's so close more of us should take advantage of its proximity. This was more than 5 sentences, but wanted to share everything I am thinking about or working on.

Thanks for all your efforts Diana to push and coordinate student research and collaborative research efforts at TCC. I know it's a thankless, tiring endeavor, but one that we really need, and students are deserving of.

--Gay Phillips



I want to thank you for the opportunity to attend the 2017 NCUR conference in Memphis, Tennessee. I was very impressed with the diversity of student projects and the quality of their presentations. Amazing! Attending the conference with colleagues from multiple disciplines was a super fun experience and helped forge new friendships and collaborations. I left the conference with many new creative and innovative ideas! As a Science Club co-sponsor, I plan to have students think about an art piece for next year's Earth Day! Thank you again for the great time! --Mary Phillips

The NCUR conference was great fun! It was inspiring to see so many undergraduate students interested in research. I went to oral presentations, poster presentations, and performing arts presentations. One presentation that stands out was an oral presentation in favor of decreasing prison sentences for minor drug offenses. It was presented as a historical report. This stood out to me because I typically think of research as something that involves data collection and this presenter did not collect data for her research. As I watched the presenter, it dawned on me that undergraduate research does not have to be something complicated. Our students do this type of research all of the time. It would be wonderful to give more of our students the opportunity to present at NCUR. --Jerilyn Schultz

Diana, I really enjoyed the trip to Memphis. It was very educational talking to the students who participated in presenting their research. The high quality of work these undergraduate students are doing is remarkable. This type of program will help students prepare for their upper division classes and continue their research projects. The conference has given me several ideas to think about that I may be able to do with my students. Thank you. --Mark Swanson

My sincere thanks for talking me into attending NCUR this year! As you know, I was hesitant to take a spot, but certain, too, that attendance would help me grasp some of the particulars about NCUR, in general, about your work with CCURI, and relative to the parameters of undergraduate research. Those basic goals were met, for sure, but I also had the privilege of witnessing anew the kind of excitement and pride that's clearly part and parcel of the undergraduate research experience. A few moments stood out for me:

- A freshman student's eloquent discussion about her research into the intersection of mass incarceration, the War on Drugs, and the "new" Jim Crow, relative to arrest and incarceration rates for African American men (Dominique Malone, *The War on Drugs and Mass Incarceration*).
- The incredibly sophisticated (and completely understandable) explanation of (for me) complex research (*Comparative Analysis of Astaxanthin Production, Through Genetic Modifications and Manipulation of Growth Factors, by the Microalgae Genera: Chlamydomonas, Chlorella, Haerematococcus, Nannochloropsis*), by another young woman (Vasupradha Vasudevan) at the Friday Poster Session; though she had already earned Bachelor's and Master's degrees in Engineering, her brother's recent untimely death from cancer catapulted her into an entirely new field, at a new school (Lone Star College System, The Honors College). In her words, she wanted to "...do something--anything--to stop cancer so that others don't have to suffer..." I shared with her that both of my parents had died from cancer, one at the age of 49. She responded with great conviction that she was in this to "figure it out."
- A discussion (*Different Disciplinary Strategies of Engaging Students in Undergraduate Research*) by three Radford University professors about their strategies for engaging students in undergraduate research. Three unique (and generous) strategies, three very different professors, but one abiding theme, which was that it was a labor of love--for research itself, for their disciplines, but mostly, of course, for their students, honors and otherwise, for and with whom they worked tirelessly, uncovering the challenges and rewards of research. Whether it was volunteering to teach a non-credited (non-in-load) research course, or supporting dozens of students in their community-based research (which meant many weekends on campus, trying to make sense out of the data, and to "clean-up" the experience for students), or beginning an honors research piece in the summer (residential campus), so that students could have the entire fall and spring to do methods, data collection, and analysis, these folks were committed in ways that were almost inconceivable. It was inspiring, and a reminder, too, about the extra "lift" that this kind of work always entails (and my role as one who needs to find a way to compensate those kinds of efforts).
- Watching our wonderful TCC students, Anna Platt and Jacob Beckman, set up their posters (*CHO Cell Viability When Exposed to Ginkgo biloba*, and *A Survey of the Rhizosphere Microbial Community of Grasses and Legumes Using 16S RRNA Amplification*, respectively), and take their places amidst their (mostly university) peers in the Friday Student Poster Sessions. It was fun to share in their excitement, and to imagine what they might go on to do with their work, and with future endeavors. It was humbling, too, to watch their professors/mentors with them, and to think about all of the work--on all of their parts--that had gone into getting there.

Finally, I very much enjoyed the time we were all able to spend together! I'm confident we can successfully share these experiences and strategies with colleagues. I am so thankful for the opportunity to know and work with all of you. --Cindy Shanks

