

Student Research and Creative Inquiry Forum**April 17, 2019****College of Education****Poster #78****Title:** Impact of Graphic Organizers on Student Writing**Student:** Yelee Kim**Faculty mentor:** Robert Blake (College of Education)

Abstract: This study project analyzes the impact of graphic organizers on 3rd-grade students' writing. In literacy, a graphic organizer is a support tool that helps students to visually outline their ideas before and during a writing assignment. Specifically, I am focusing on how graphic organizers improve the quality of writing as well as increase students' confidence in their writing. Throughout a span of 4 consecutive weeks, I chose 3 focus students who struggle with writing, based on a pre-assessment (a response to a prompt without an organizer). I spent 1-2 days each week to model how to use a graphic organizer, scaffold, and gradually release these students to complete and utilize the organizer independently while responding to a similar prompt (post-assessment). I will analyze each student's pre-assessment and post-assessment alongside a rubric for the prompt and compare the two responses. This close analysis will reveal the impact of graphic organizers on the quality of students' writing. In order to assess change in the students' feelings toward writing, I will be giving them an attitude survey about writing, both in the beginning and at the end of the study.

Poster #79**Title:** Using Reflective Analysis to Explore Preservice Elementary Teachers' Science Teaching Beliefs**Student:** Julie Mangano**Faculty mentor:** Deepika Menon (Physics, Astronomy, and Geosciences)

Abstract: This study investigates how preservice elementary teachers' beliefs about science teaching change after their participation in a science methods course and field experiences. Specifically, we investigated (1) how do preservice elementary teachers narrate their science learning and teaching experiences at the beginning and end of the science methods course, and (2) how does the depth and complexity of ideas about science teaching change after their participation in the course? Data sources included participants' (N=55) written science autobiographies describing prior science experiences and reflection papers on their teaching in an elementary classroom. Data were analyzed using open and axial coding to generate themes from the data. Further, a coding scheme was established that consisted of a four-levels scale (1-4); each level suggests an increase in depth and complexity of beliefs about science teaching. Results showed that preservice teachers' reflections were in-depth and complex at the end of the semester suggesting connections to future science teaching. Our findings highlight the importance of reflective practice in teacher preparation courses. Engaging in reflective practice on positive field experiences can allow preservice teachers to reflect at higher levels of depth and complexity. Findings have implications for preservice teacher education programs.

Poster #80**Title:** Writing & Motivation**Student:** Christina Poerstel**Faculty mentor:** Robert Blake (Education)

Abstract: For my project, I studied the impact authentic writing has on student's motivation to write. I wanted to see if activities can encourage students and if their writing skills will improve. In the writing unit, students wrote opinion letters to friends about their favorite picture books. For my project, the second grade students wrote to author Tim Warnes, author of Chalk and Cheese from the UK, about their opinion of his book with the promise that he would write back.

To see how this affects their literacy skills, I analyzed students work with a rubric scoring several of the strategies and concepts we learned from this unit and see if their writing improved.

I also had the students fill out a survey answering how much they enjoyed writing letters before and after they wrote to the author to see if their surveys were more positive after they wrote to the author.

Poster #81**Title:** Universal Design for Learning in the Classroom**Students:** Toni Pritchard, Arianna Maine**Faculty mentor:** Dr. Robert Blake (Education)

Abstract: This project will provide an overview of the data we have collected thus far in determining whether the use of a Universal Design for Learning, with a focus on incorporating Howard Gardner's multiple intelligences, can increase student engagement and motivation in a classroom. This data collection involved us analyzing our lesson plans, student survey responses, and observational data.

Poster #82**Title:** Climate Beautification of and Elementary School**Student:** Amanda Starsonneck**Faculty mentor:** Robert Blake (College of Education)

Abstract: I want to engage students at my placement in a creative art project which can foster a more positive environment; I want students to help design and paint a mural on a wall they frequently see. The mural will have a theme chosen by students and staff based upon a virtue or concept they think will best benefit them. For example, if they expressed, they had the goal to practice kindness more, we may design and create a mural of students holding hands with a banner that says, "choose kindness." It is my hope that students and staff will be able to bond during creation of the mural, gain ownership of the finished product, and obtain a lasting feeling of confidence from creating it while they utilize it as a reminder of the virtue it represents.