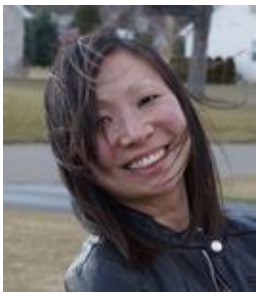
James H. Brickley Endowment for Faculty Professional Development and Innovation

Fall 2018 Award Winners



Brittany Albaugh (Department of Chemistry). "Computational modeling of protein crystal structures in the Biochemistry lab classroom." $1,200. Dr. Albaugh will be incorporating an innovative computational protein structure-modeling project into the CHEM 453W Biochemistry Laboratory course during Fall 2019. By taking Biological Chemistry 602 – Protein Crystallography – at the University of Michigan, Dr. Albaugh will gain expertise in the subject of X-ray crystallography. In the summer of 2019, she will receive training on how to use the advanced features of the protein structure-model building software, Coot.

Cassandra Barragan and Jillian Graves (School of Social Work). "Awareness of International Mental Health and Healthcare Issues: A PhotoVoice Project." $2,500. Dr. Barragan and Dr. Graves will be travelling to Westmoreland, Jamaica, in the Spring/Summer of 2019. Dr. Barragan will assess the substance abuse needs in the community, while Dr. Graves will focus on mental health. Their assessment will be followed by their work to provide telehealth resources during the 2019-2020 and 2020-2021 school years.

Chong Man Chow (Department of Psychology). "Attachment Security and Weight Status in Adolescence: Disinhibited Eating Behaviors as Mediators." $2,000. Dr. Chow will be creating a survey for 100 adolescents and their parents from the Ann Arbor/Ypsilanti area in order to obtain diverse perspectives on adolescents' attachment security and eating behaviors. This study will investigate whether adolescents' attachment security is related to their weight status and whether the linkages between attachment security and weight status are mediated by disinhibited eating behaviors.

Brian Connolly (Department of Biology). "Environment science meets the flipped classroom: leveraging ruggedized video technology to improve the accessibility of outdoor education." $1,448. Dr. Connolly will be developing a series of lectures that will cover unique subjects of environmental science taught in EMU biological sciences. He will also develop a video-based lab that guides students through the scientific process using wildlife camera images to test particular hypotheses in animal behavior. Video lectures and labs will be posted within online course materials, and the videos will be made available through the biology department's website.

Matthew Cook (Department of Geography and Geology). "Historical Geographies of the African American Experience: Analyzing Museums' Changing Narratives". $2,000. Dr. Cook will be making a pilot research trip in Summer 2019 to African American/Black museums in the Baltimore and Washington, D.C., area. In collaboration with a research team, he will use the pilot data from a Summer Research Award, an Undergraduate Research Stimulus Program Award, and the Brickley Award to complete a grant proposal for the National Science Foundation's Geography and Spatial Sciences Program.

Arman Dabiri (School of Engineering Technology). "Designing and Manufacturing a New In-house Apparatus for Studying the Creep Behavior of Adhesively-Bonded Joints." $2,983.00. Dr. Dabiri plans to design, model, and prototype a creep-test machine that will be the next version of the one he designed as a student at the University of Arizona. He will develop the electronic circuit and calibrate the sensors, as well as develop the graphical user-interface. The proposed apparatus will have improvements in accuracy, size, operation, and manufacturing costs in this updated version.

Jason Ferguson (School of Art and Design). "Travel Support for SIGGRAPH Asia 2018." $2,000. Dr. Ferguson will be disseminating his project, *Being, nothing more*, at the Special Interest Group on Computer GRAPHics and Interactive Technologies in Tokyo, Japan, in December 2018. This is the world's largest conference on computer graphics. There he will install his work, present an official talk about his research, and speak with conference attendees about his research and the technological process used to create the work in the gallery.

Charles Graham (School of Social Work). "YB Men Project Development." $1,000. Dr. Graham will be hiring a Graduate Research Assistant to provide technical resources in developing and implementing YB Men Project's web-based mental health education and social support intervention program for young adolescent males of color. This Graduate Research Assistant will gather and develop relevant and appropriate materials to be used for the program, as well as assist in further grant funding proposals to supplement the components of the intervention program.

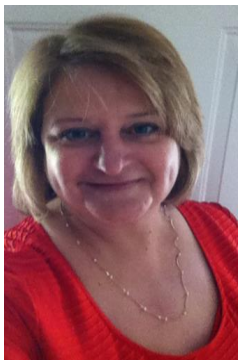
Naomi Hashimoto (Department of Special Education). "The Role of Phonological Neighborhood Density on Naming." $305. Dr. Hashimoto will be conducting a survey to determine factors that influence the speed of image naming. This study will use a priming technique to examine the phonological stage more closely in speakers without language deficits. Dr. Hashimoto will recruit undergraduate research collaborators, who will assist in testing subjects and performing data analysis.

Tareq Khan (School of Engineering Technology). "Internet of Things Connected Smart Canister System Creating Automatic Shopping List." $1,957.00. Dr. Khan is working to create a novel Internet of Things connected smart canister system to sense the remaining quantity of an item in a canister. This data will be uploaded to a cloud server and a smartphone app will then generate a shopping list based on the items of low quantity that need to be replaced. The smartphone app will also track how much quantity of the item is consumed every day, week, or month.

Heather Khan-Welsh (Department of Geography and Geology) and Mary-Elizabeth Murphy (Department of History and Philosophy). "Urban Studies Minor at EMU." $500. Dr. Khan-Wlesh and Dr. Murphy would like to create an Urban Studies minor at EMU. They would like to launch the program in Fall 2019 and sustain it until Fall 2020. This minor would include a required internship and a flexible set of five courses. In Winter 2019, they plan to go through the approval process starting with the College Advisory council in Arts & Sciences, where they will present promotional materials for the minor.

Andrew Mansfield (School of Engineering Technology). "Developing an Air Flow Bench to Investigate Flow-Field Optimization in Thermofluid Devices." $1,700. Dr. Mansfield aims to design, construct, and commission a custom air flow bench facility. He would then like to develop and demonstrate a novel real-time experiment-based flow-field design process. He plans to report the results in a paper at the 2020 Society of Automotive Engineers World Conference and present to external funding sources.

Camilla McComb (School of Art and Design). "Documenting Effective Teaching Practices: Learning to use the Swivl to improve Methods in Art Education." $931. Dr. McComb will implement the smart technology, Swivl, into their course ARTE 460, Methods in Visual Art Education. This technology can document teaching with 360-degree capability. She will experiment with teaching with the technology in Fall 2018, and will develop guidelines and procedures for student use in Winter 2019. By Fall 2019, she would like to implement Swivl practices with students enrolled in ARTE 460.



Jacquelyn McGinnis (Department of Special Education). "Promoting Literacy for High School Students with Significant Disabilities." $950. Dr. McGinnis will collaborate with 4 EMU alumnae who currently teach special education at Wayne Memorial High School in Wayne, Michigan. In this project, the team will make adapted books for 4 classrooms for the 2018-2019 school year. She will lead the teachers through the process and adapt the books based on the students' physical, cognitive, and language characteristics. They will use the books during reading instruction in the classrooms; Dr. McGinnis will provide professional development for these classroom activities.

Laura McMahon (Department of History and Philosophy). "Presentation of Work from *Essential Insecurity: Merleau-Ponty and the Nature of Political Life*." $1,500. Dr. McMahon will be traveling to The Canadian Society for Continental Philosophy conference in Calgary, AL, and Northern Arizona University in Flagstaff, AZ, to present material from the first two chapters of her book, *Essential Insecurity: Merleau-Ponty and the Nature of Political Life.* In Spring 2019 she will be presenting a stand-alone paper related to her book project at a small bilingual conference in Regina, SK.

Christina Mirtes (Department of Teacher Education). "Concepts to Go!: Extending Early Literacy Practice to the Home." $1,800. Dr. Mirtes will be extending her previous project, "Concepts to Go!" to the preschool children and families at EMU's Children's Institute. Under this project, Dr. Mirtes purchases and creates custom bags containing developmentally appropriate early childhood education books and materials to support early literacy and intentional teaching in the content areas. She will be creating 20 more bags for the current supply, researching the effects of the implementation of these bags into children's reading practices, and will subsequently submit proposals to two conferences in 2019.

John Palladino (Department of Special Education). "Policy Analysis of Michigan's Approach to Title I Educational Provisions for Foster Care Youth: An External Grant Proposal to the Joyce Foundation." $4,195. Dr. Palladino will be submitting a grant proposal to the Joyce Foundation by April 2019 for an intended external funding in 2019-2020 for a sponsored policy analysis project. Special emphasis for this proposed grant will be on the disproportionate special education population within Michigan's foster care system. Dr. Palladino will receive a three credit hour course release to complete this project in Winter 2019.

Gary Pederson (School of Music and Dance). "Travel to study a WWII "Victory Vertical" piano in Phoenix, AZ." $1,500. Dr. Pederson will be traveling to Phoenix, AZ to examine, play, record, and photograph a rare, unmodified example of an Olive Drab Government Issue piano built for military use during WWII. From the examination of this primary source, Dr. Pederson will be able to expand on his project, The Victory Vertical Project, by presenting the program in lecture-recital format for a full schedule of performances for the 2018-2019 season.

Paul Price and Anne Casper (Department of Biology). "Equipment for Antibiotic Discovery Teaching Laboratory." $1,194. Dr. Price and Dr. Casper will be purchasing Digital Colony Counter equipment that will increase student success in course-based undergraduate research experience courses such as the course Tiny Earth. Some of their goals are to improve students' ability to analyze and interpret scientific data they generate, improve retention of students in the Biology major, and increase students' sense of belonging to a larger scientific community. In December 2018 they will be using surveys and concept inventories to collect data to evaluate their project goals.

Heather Shouldice (School of Music and Dance). "Teachers' Experiences as Participants in a Music-Learning-Theory-Focused Virtual Mentoring Program." $600. Dr. Shouldice will be purchasing NVivo, a qualitative data analysis software program that will code written data sources and include transcripts from a research study that will be conducted throughout the 2018-2019 school year. The study will include participants of a visual/digital mentoring program in which young teachers new to Music Learning Theory (MLT) are paired with a mentor teacher who has experience teaching with MLT. NVivo will help Dr. Shouldice code and analyze the video data.

Robert Stevens and Kate Pittsley-Sousa (University Library) and Keon Pettiway (Communication, Media & Theatre Arts). "How much Difference Does Free Make? Exploring the Effects of Free Course Readings in Communications Courses." $1,258. Professor Stevens at Halle Library will collaborate with the Communications Department instructors to purchase e-books for the use of approximately 300 students in three different Communications courses. Library faculty will prepare information and tips on e-books for these students. Instructors will add links and information to their syllabi and Canvas course shells as well as teach with these books. The combined cost that students will save is $20,161.

Amanda Stype (Department of Economics). "Funding Needed to Present at and Attend the 16th Annual Professor's Conference at the St. Louis Federal Reserve Bank." $500. Dr. Stype will be presenting at the 16th Annual Professor's Conference at the St. Louis Federal Reserve Bank in St. Louis, MO. There she will be presenting her proposal, *Moving Beyond Lecture: Making Time for Active Learning in Small Groups*, which focuses on innovative low-cost, low-technology wats to promote active group-based learning in principles of microeconomics and macroeconomics classrooms. This conference will take place in November 2018.

Stephanie Wladkowski (School of Social Work). "Enhancing Methodological Training and Professional Development." $2,450. Dr. Wladkowski will be enrolling in courses at the Summer Institute in Survey Research Techniques at the University of Michigan in Summer 2019. She will be taking Mixed Method Research Design & Data Collection, and Introduction to Multi-Item Scale Development and Testing. Taking these courses will support her professional development and enhance her methodological training. She then plans to apply to the National Palliative Care Research Center Junior Faculty Career Development Award, and the Cambia Health Foundation Sojourns Scholar Leadership Program.

Bonnie Wylo (Department of Physics and Astronomy). "Development of Online Physics Lab Experiments for General Education Knowledge of the Disciplines Science courses." $3,700. Dr. Wylo will receive a one course release for Winter 2019. During this time, she will be creating 8-10 at-home lab experiments suitable to meet the criteria for two of EMU's General Education Science courses, PSCI 110 The Science of Everyday Life, and PHY 100 Physics for Elementary Teachers. She would then like to see the addition of online labs to complement the existing online science lectures offered at EMU.