

University of Louisville
i2a SUN Grant Funded Projects 2014

Jennifer Osborne, Dental Hygiene; *Development of Critical Thinking Online Modules*

We intend to develop three online critical thinking modules. We will utilize the basic module developed by the i2a digital tools committee and expand on the material that is unique to dental hygiene. The first module will be administered and assigned to our incoming Upper Division Dental Hygiene students. Our students come from multiple universities and colleges (e.g. – JCC, IUS, UofL, etc) and may not have had courses that previously had the Paul Elder framework utilized. This online module will allow all students to be aware and start utilizing the framework at the beginning of the program. The second module will be given to the senior dental hygiene students and will focus more on the clinical application and using critical thinking. The third module will be expanded and administered to on and off site faculty personnel. Not only will this module include the basics of the Paul Elder framework, but it will also include teaching methods/techniques that can be used in the classroom or within a clinical dental setting.

Angela Thompson, Speed School of Engineering: *Encouraging Critical Thinking in an Introduction to Engineering Course using the Grand Challenges for Engineers*

This project supports development and implementation of an assignment for first-year engineering students in the Introduction to Engineering course. The assignment, in which students are asked to research and report on one of the National Academy of Engineering's "Grand Challenges" that relates to their chosen major, seeks to develop critical thinking skills through application of the Paul-Elder framework and encourage an awareness of community issues within the engineering discipline. The Grand Challenges list 14 priorities in the areas of health, sustainability, vulnerability, and joy of living that await engineering solution. Following the Grand Challenges assignment, students will be asked to reflect on engineers' roles in addressing community issues in a short writing exercise. This will serve to assess students' understanding of community issues and critical thinking ability on an individual basis.

Sherri Wallace, A&S POLS, *Advancing Critical Thinking through Performance-Based and Service-Learning Assignments*

The project goal is to incorporate the language of the Paul-Elder Critical Thinking framework into assessments, evaluation rubrics, performance-based and service-learning assignments in two existing General Education and one Culminating Undergraduate Experience course(s) and to collect data on student learning for research and publication. The goal in both undergraduate courses is to encourage student participation in the statewide annual showcase of undergraduate research, Posters-at-the-Capitol (P@C) event, and the UofL's university-wide undergraduate Research and Community Engagement Symposium.

Darcy Walworth, Chad Sloan, Chris Fitzgerald, School of Music; *Infusing and Assessing Critical Thinking Project*

The proposed project was created in response to ongoing discussion in the school of music (SOM) regarding how to effectively discuss in syllabi and assess in yearly reports the infusion of the Paul-Elder critical thinking framework throughout (SOM) programs of study. SOM faculty believe that critical thinking is an inherent process when rehearsing and performing music, but are at a disadvantage when relaying outcomes due to the differences in discipline specific terminologies. The intent of the project is to identify existing critical thinking resources in the published music literature as well as processes being implemented at other music higher education institutions. The information gathered will then inform the creation of a critical thinking toolkit resource specifically created to meet the above stated need of the SOM. Evaluation of the project will include a pre/post faculty survey as well as pre/post syllabi review.

Kathryn Whitmore, CEHD; *Moving from Inquiry to Advocacy and Action: Increasing Progress toward Graduating Culturally Responsive Teachers*

This project will engage 7 junior and senior faculty members in reflection and research to assess our teacher education students' development as critical thinkers and culturally responsive educators across elementary and English teacher preparation programs. It will grow our existing accomplishments with Inquiry to include a stronger focus on Action and Advocacy as we intend to prepare teachers who will take positions as change agents for social justice in increasingly diverse community schools. Our mixed-methods study will triangulate quantitative data from existing assessment rubrics and the Culturally Responsive Orientation Profile, and qualitatively generated patterns of thinking and dispositions identified in entrance essays and course assignments. These efforts will lead to improved curriculum and programmatic decisions, build the internal capacity of the faculty, and lead to proposals for additional funding. Findings will be disseminated in publications and national presentations, thereby extending mentoring relationships in these programs.