

Alliance to Advance Liberal Arts Colleges (AALAC)

Faculty Workshop Application

Bringing Project-based Learning to Large Introductory Courses

Despite renewed interest in pedagogical innovation through emphasis on curricular design, “flipping” classrooms and creating environments that accommodate individual learners, many courses continue to rely heavily on lecture-based approaches particularly at the introductory level, where demand is high and enrollments are typically large (100+ per semester). This approach necessarily limits time for personal student involvement with experts and with each other, fosters “teach to the middle” strategies rather than creating personalized learning opportunities, and encourages students to receive information rather than actively participate in the production of their own learning. While emerging evidence suggests that content need not be shortchanged in the pursuit of skills (Rotherham & Willingham, 2009), disinterest of many faculty to teach introductory courses, over-reliance on temporary instructors at the introductory level, and general academic inertia has caused introductory courses to often look much as they did decades ago.

By contrast, project-based learning, most commonly defined as an instructional approach based on authentic, real-world activities that are aimed at engaging student interest and enthusiasm (Buck Institute for Education, 2017) is designed to answer a question or solve a problem. It allows students to face challenges that lead to answers, reflect on ideas and make decisions that affect project outcomes (Aditomo, Goodyear, Bliuc, & Ellis, 2013). There is growing literature showing that project-based learning is more effective in promoting those skills most valued within the liberal arts (i.e. deep thinking, the ability to apply knowledge, communication and reasoning skills), when compared to traditional didactic approaches (Freeman, et al, 2014).

We propose to convene a workshop in the summer of 2020 for instructors of high demand, and large introductory courses. In line with the AALAC mission, we will foster collaboration that allows us to achieve as yet, unreachable levels of engaged student learning within these courses.

The schedule will include two days at Wesleyan University. During the morning of Day 1, participants will share their current practices, the greatest barriers that they and their students face, and progress already being made in moving class time away from an exclusive reliance on lectures. During the afternoon of Day 1, there will be a presentation on best practices and models of successful project-based courses and a discussion aimed at re-designing the largest lecture-based courses being taught at AALAC schools. Day 2 will involve active work on innovative student projects and shared efforts in script writing for content that will be moved outside the class sessions in order to make time for project-based work in the classroom.

Goal:

The goal will be for each instructor to return to their home institution with a plan for incorporating projects that promote deep thinking, knowledge application, communication and reasoning in a part of their introductory course that to date has relied exclusively on student learning through memorization.

Proposed Outcomes:

In addition to the report that will be submitted to AALAC, we will submit a full grant application to NSF to support project-based learning across the AALAC partnership institutions, within 12 months of the faculty workshop.

Follow-up Activities:

Follow-up activities for this newly formed collaborative team will include the sharing of project-based curriculum, resources and materials that promote a “flipped” class environment within introductory courses.

Assessment:

Creative Research Solutions, Inc. an external evaluator on currently funded projects at Wesleyan University will conduct the evaluation. Pre post survey assessment focused on needs assessment within large introductory course will be administered, as well as post meeting interviews with faculty focused on the success of the meeting in promoting project-based learning in introductory courses across the AALAC member schools.

Joint Planning Committee:

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Condensed CVs: (attached)

AALAC Representation:

We will announce the meeting to all AALAC faculty who teach a large introductory course.

References:

Aditomo, A., Goodyear, P., Bliuc, A. M., & Ellis, R. A. (2013). Inquiry-based Learning in Higher Education: Principal Forms, Educational Objectives, and Disciplinary Variations. *Studies in Higher Education, 38*, 1239-1258.

Buck Institute for Education. (2017). Project Based Learning Handbook. Retrieved from <http://pbl-online.org/>

Freeman, S., Eddy, S. L., McDonougha, M., Smith, M. K., Okoroafor, N., Jordt, H., & Wenderoth, M. P. (2014). Active learning increases student performance in science, engineering, and mathematics. *Proceedings of the National Academy of Sciences, 111*(23), 8410–8415.

Rotherham, A. J., & Willingham, D. (2009). 21st Century Skills: The Challenges Ahead. *Educational Leadership, 67*, 15-21.