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The GIFT of Signature Work

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Service/Experiential Learning: A GIFT that Fosters Signature Work
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What is Service/Experiential Learning?
"[F]ield-based 'experiential learning' with community partners is an instructional strategy – and often a required part of the course. The idea is to give students direct experience with issues they are studying in the curriculum and with ongoing efforts to analyze and solve problems in the community. A key element in these programs is the opportunity students have to both *apply* what they are learning in real-world settings and *reflect* in a classroom setting on their service experiences. These programs model the idea that giving something back to the community is an important college outcome, and that working with community partners is good preparation for citizenship, work, and life" (Kuh, 2008, p. 11).

What makes it a Great Idea For Teaching?
The AAC&U has identified service-learning/experiential learning as one of ten "High-Impact Educational Practices," practices that "have been widely tested and have been shown to be beneficial for college students from many backgrounds" (Kuh, 2008, p. 9). Benefits of service-learning experiences include:
- increases the likelihood that students will experience diversity through contact with people who are different from themselves
- provides opportunities for students to see how what they are learning works in different settings, on and off campus
- increases academic engagement
- can be life changing (Kuh, 2008, pp. 15-17)

How does it connect with the idea of Signature Work (SW)?
The AAC&U's LEAP Challenge literature specifically identifies community-based, experiential learning as a fruitful avenue for fostering SW. Service-learning experiences during the college years push students to engage directly with the messiness of the "real world," and think creatively about how ideas can be brought to bear in improving conditions in our communities. As the AAC&U describes, "A twenty-first century education prepares students to work with unscripted problems. Today's graduates will…engage with diverse communities that urgently need solutions to intractable problems. Our graduates will have to secure environmental sustainability, find ways to maintain human dignity and equity in an increasingly polarized nation, and manage a world rife with conflict" (AAC&U, 2015). Service-learning provides an incubation ground within which students can begin to engage in this complex work.

That's great and all, but how can I realistically incorporate it into my class?
- Visit this page on Campus Compact's website: http://compact.org/resource-posts . It provides a trove of examples/resources relating to how professors from all over the country and in all disciplines have incorporated service/experiential learning into their courses
- Get in touch with Keri Bass in CORE to discuss ideas and identify community partners that might be interested in working with you.
- Get in touch with Jeff Ratliff-Crain about funding support (for transportation, meals, etc.)

References
AAC&U. (2015). *The LEAP Challenge: Education for a world of unscripted problems.* Retrieved September 25, 2015 from https://www.aacu.org/sites/default/files/files/LEAP/LEAPChallengeBrochure.pdf.
Kuh, G.D. (2008). *High-impact educational practices: What they are, who has access to them, and why they matter.* Washington, DC: Association of American Colleges and Universities.

One Teacher's Stories: How Service-Learning Provided Scaffolding for Future Signature Work

Course: LSFY 103-05: Urban (School) Legends? Examining Conditions in Inner City Schools
Description of S-L Component:
- Augie students serve 2 hours each week as tutors in an after-school program for students at Frances Willard Elementary School in Rock Island. Frances Willard serves a high poverty and ethnically diverse community. Most students are immigrants/refugees from Liberia, Burma, and Thailand.
- Augie students also engage in pen-pal (email-pal, actually) relationships with high school juniors at EPIC Academy, a charter high school in south Chicago. EPIC also serves a high poverty community. The racial make-up is nearly 50% African American and 50% Latino. In addition to weekly pen pal exchanges, the Augie students spend a full school day at EPIC Academy, and EPIC Academy juniors make an overnight visit to Augie.
- Augie students are required to write weekly journals that draw connections between course readings and insights they are gaining via their volunteer service and their pen-pal relationships. In addition, the final research paper requires students to identify a question or issue that is related to some urban school issue (such as immigration, school funding policies, race issues, curricular issues, health care issues, etc.), conduct a related literature review, and supplement their "book-based research" with community-based research (e.g., eliciting a pen-pal's perspective, interviewing a school social worker, interviewing leaders in relevant community organizations, etc.).

Evidence that the Course Provided Scaffolding for Future Signature Work
- Exceptionally high scores on IDEA Item 32 ("Acquiring an interest in learning more by asking my own questions and seeking answers"), OKT, More Than I Imagined, Comprehensive Learning Portfolios, direct influence on choice of major (anthropology, psychology, education, pre-law, etc.), unsolicited student comments

Course: EDUC 262/263: Songs of Freedom: Music, Politics, and Education in Jamaica
Description of S-L Component:
- Required coursework for the Augie Jamaica Program, EDUC 262 is a 3-credit, on campus course that prepares students for the spring break trip, exposes them to aspects of Jamaican culture and history, and begins to raise pointed questions about colonialism, oppression, and social justice (in most cases, these issues are laid out by Jamaican voices via literature, music, and film).
- EDUC 263 is a 1-credit service-learning experience that occurs on the island. Students spend a week as full-time teachers and teacher aides in three inner-city Kingston schools.
- Upon returning to the U.S., students are required to complete two culminating projects: (1) an audio-visual documentary that communicates insights gained via the experience…relevant Jamaican music is a required component; (2) an essay that integrates ideas drawn from pre-trip readings/discussions/course material with insights gained from the trip itself with indications of what these ideas mean and what they might lead to in the future for each student

Evidence that the Course Provided Scaffolding for Future Signature Work
- Peace Corps, More Than I Imagined, testimonies about courage to pursue "alternative" post-grad opportunities, Comprehensive Learning Portfolios

Background on the Course and Assignment:

My PSYC 349 Physiological Psychology course is a requirement for Neuroscience majors and an upper division elective for Psychology majors. I teach the course as a student-led seminar where students read primary journal articles. The course is focused on learning skills and attitudes necessary to become an independent learner, rather than memorization of information. In particular, we focus on reading information critically, how to find answers when you encounter unfamiliar information, synthesizing new information with what is already known, and communicating about difficult material with peers.

The term project for the class is similar to a **grant proposal**. The paper has two parts: (1) a **background review** and (2) a **future directions** section. The background review describes what is currently known about the student's topic of interest. It should be focused and the information should lead directly to an important question that the student believes remains unanswered. In the future directions section, students state a hypothesis and propose experiments to investigate the question, describing the model system they would study (and why), the method(s) they would use to answer the question, and expected results.

Finally, students create a poster that summarizes the most important parts of their grant proposal project and present their work to other students, faculty, and guests at a poster session during finals week.

Project Details:

Structuring experiences to prepare students for signature work

1. Give students opportunities to learn how to develop research questions and hypotheses and appropriate methods to test those hypotheses.
   a. Students can be asked to explicitly outline the arguments made by researchers from the introductions of journal articles assigned for the class.
   b. How do researchers use previous findings as premises for their own hypotheses?
   c. This is the most challenging part of the assignment for students → using evidence to lead directly to a logical research question and hypothesis.
2. Incorporate low-stakes opportunities for students to communicate about their project.
   a. The class is discussion-based and student-led, so students get a lot of practice, in general, using scientific terms as they talk about experiments with one another.
   b. Students also engage in discussions specifically about their grant proposal project. In groups of ~3, they take turns describing the background research, hypothesis, and ideas for testing the hypothesis.

Give students ownership of the project

3. Students choose their topic and define the problem.
   a. Don't do this too early in the term. Students learn *a lot* about how to think about the grant proposal assignment through the reading and outlining assignments that happen in the first few weeks of class.
   b. Students choose a topic and initially provide 4 annotated sources. They can choose any topic as long as it relates the brain to cognition/behavior. I provide

feedback – usually encouraging the student to narrow their topic so that the scope of the project is manageable.

c. Since this is a required course for NSCI majors, it is usually a topic that deeply interests them and/or relates to their future career plans.

d. The only constraint on their research question and hypothesis are that they must be supported by the literature presented in the background section of the grant proposal.

Make the process authentic to tap into student motivation

4. Format/Framing of the assignment
   a. Describing the assignment as a grant proposal immediately presents it as a useful skill that students may need to use in their future careers.

5. Brainstorming with other students
   a. I remind students that science is a very collaborative process. In the real world, researchers engage in discussions with lab mates and other colleagues to refine ideas and decide how to approach problems.
   b. After students have written a draft of their background identifying previous literature and their research question, they explain their problem in small groups (~3 students) and brainstorm possible ways to test their hypothesis. Which model systems and methods would be appropriate?
   c. These discussions bring multiple perspectives to the problem solving: ideas from students' experiences in other classes, internships, research or from their own personal reading.
   d. Students often get new ideas for directions for their paper at this point. You might consider whether two brainstorming sessions would be appropriate/feasible. I may try to hold one of these feedback sessions asynchronously via a Moodle forum or Google Docs.

6. Poster presentation
   a. Students present posters summarizing their project at a poster session during Finals Week. Other faculty, students, and guests are invited to attend. Prior to the final presentation, students bring drafts of their posters to class to present to other students. They can practice transitions and notice areas where important information is missing or their logic might not be clear. They also field questions from their classmates and get ideas for figures/images that might be helpful for their audience.
   b. Poster presentations are a common way for sharing ideas in science, so this format is a very authentic way for students to present their work. Furthermore, research indicates that presentation of course work to an audience beyond the students and professor in the class raises the stakes and motivates students to produce higher quality work.

Students are asked to reflect on their learning at the end of the term. Here is an excerpt from one student's reflection. She was interested in a career in nursing and chose to study Complex Regional Pain Syndrome. Her comments suggest that course projects can serve as high-impact signature work for students:

"Throughout my undergraduate career, I was asked to formulate hypothesis, collect data, and draw conclusions. … Countless times I was asked to dress nice and speak in front of a group of fellow students to convey some type of message.

With all those experiences, I have never felt so challenged and accomplished in presenting my Grant Proposal Paper. My first run though was luckily with a student. I was so shaky and without confidence. Eventually, I realized that I had an amazing topic. I couldn't let my nervousness take away from this really interesting information I was so excited to talk to people about. After shaking off my first poster presentation, I got to talk to faculty about my ideas. Standing there with Dr. Rose and a prospective student—I brought myself back to freshman year. I would never have imagined… while dozing off in my Intro to Psych class… I would be able to find my passion in this field"

"… After giving my poster presentation to faculty and staff, I feel like I can communicate professionally. Even beyond what I did my Grant Proposal on. I was forced to reference my poster, maintain eye contact, and answer questions on the fly with sureness and good articulation. Through this course, and my experience at Augustana as a whole, I have matured so much as a student. I am excited to take all that I have learned here with me into the real world."

The GIFT of Signature Work: Anne Earel and Connie Ghinazzi, Research & Instruction Librarians

Encouraging Students to Explore Interdisciplinarity During the Research Process

"To make excellence inclusive, LEAP [Liberal Education and America's Promise] promotes…

- Students' Signature Work—challenging higher education to prepare **all** students to complete a substantial cross-disciplinary project in a topic significant to the student and society, as part of the expected pathway to a degree. The signature project can take one of many forms (e.g., capstone, internship, field work, research, community-based research)."[1]

Though we each work with our assigned divisions on upper-level capstone, Senior Inquiry, and other advanced research projects, each of the Research & Instruction Librarians at the Tredway Library is interdisciplinary and cross-disciplinary in her knowledge. Our work with the LSFY first-year sequence and at the library's research help desk ensures that we consistently encounter questions and research challenges from across the academy, and we encourage students to explore resources beyond their major discipline(s) to add dimension to their work.

How might teaching faculty encourage students to explore resources in other disciplines in their Signature Work?

- Use the library homepage as a "road map" to other disciplines:
  - http://www.augustana.edu/x23815.xml
  - click on the yellow "Databases" tab, then open the drop-down menu

    - We organize library resources roughly by discipline; students can easily see which other disciplines/majors are closely aligned to their own, while also seeing others whose perspectives might enable them to view their Signature Work through a different lens.

    - Encourage students to consider which other discipline(s) might have a stake or an interest or an interest in the topic of their Signature Work, and ask that they explore the research of that discipline, both to add breadth to their explorations and to challenge their current understanding of their topic.

- Ask a librarian! We are happy to work with students on their Signature Work at all stages, from research topic development and source exploration until a project's completion. We provide consultations to Senior Inquiry or other advanced seminar-type classes, and/or will meet with students individually. Encourage students to make an in-depth appointment with the librarian of their choosing via the form on this page: http://www.augustana.edu/x39394.xml

--Anne Earel

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[1] "The LEAP Challenge: Education for a World of Unscripted Problems." *Association of American Colleges & Universities.* AAC&U, n.d. Web. 22 September 2015.

The GIFT of Signature Work: Anne Earel and Connie Ghinazzi, Research & Instruction Librarians

Making the Senior Inquiry Project Truly a Culminating Experience

As the liaison librarian to the Natural Sciences division, it was necessary for me to develop a way to challenge the large number of majors, particularly in biology, to stretch their research skills but still make it scalable for one librarian partner. We have followed the model described below for four years and routinely hear from students they get a great deal out of the session. Even though this began with biology, I use this same model with SI classes in the other majors as well.

Rather than meeting with students at the beginning of the term when they are doing their SI, we schedule our session for mid-term, usually within weeks 5-7. We do this because in each of the majors, they've received discipline-specific instruction from me at least once and likely twice in other classes. Most students feel pretty confident in their researching abilities, so faculty members direct them to get started using the resources with which they are familiar.

Several days before our session, the faculty member asks students to answer the following questions. Their answers should only be a couple sentences each and be as specific as possible.
1. What is the topic or research question you are exploring?
2. What resources have you consulted as you are doing your literature research? Please list the names of databases, websites, organizations, or people you've consulted.
3. What is one problem you are having with your literature research you'd like to have addressed in the session with the librarian?

The faculty member sends me these responses a couple of days before our session. I usually spend several hours looking at what they have consulted and think about the gaps in what they are using and the problems they have expressed. Usually this requires that I develop some background knowledge in order to explore the topic in unique ways. This also helps me develop alternate terms that they may not have considered. I compile a list of the suggestions I want to share with the students, but often additional questions come up during the sessions. Typical problems are:
- Not exploring the best databases for their topic
- Not identifying "who cares," which can move a topic into an interesting question
- Finding the full text of significant articles; requesting materials through I-Share and ILL
- Not knowing how to mine an important article with backward and forward searching techniques, or exploring a key author for his/her other work or work in their lab
- Not thinking about organizations or agencies as sources for the most up-to-date data
- Not knowing how to set up alerts to make them aware of new studies pertinent to their question

During the session, we sit in a half-circle with a wireless keyboard and mouse, which we pass around. The session is led by students, who share their research problems and then demonstrate the suggestions I've identified. Often other students and the instructor also will have comments. Most students take a lot of notes. At the end, I ask them to identify the next steps they will take and challenge them to make this the culminating work of their college career, ultimately publishable on Augustana Digital Commons.

--Connie Ghinazzi

Senior Inquiry in Biology: Signature Work???

Biology Constraints: Many students!! The majority of our students are selecting biology as a major to support pre-health professional pursuits/passions. Our SI experience typically assesses individual work, but not always. The assignments which offer practice throughout our major in preparation for SI are more likely done as group work due to larger class sizes.

Biology SI Basic Info: Most of our students will take a "literature review" course to fulfill senior inquiry. 1 faculty member / 10 students in a 10 week term; Umbrella/Specialized topics chosen by faculty members (not students). Students choose among specialized topics sections.

Outcomes of Senior Inquiry

Biology

- **Reflect** on undergraduate experiences
- Generate a usable question and carry it through scientific **inquiry**
- Take responsibility for their **own learning**
- Utilize **information literacy** in the sciences
- **Communicate** their work in written and/or oral contexts

Closest alignment with Augustana College Learning Outcomes:

Analyze, Communicate, and *Wonder*

Primary activities in the course: Student-led discussions of primary literature in the discipline, student presentations of primary literature, a series of assignments that lead to problem/topic identification, generation of sources to identify knowns, and production of a literature review that establishes the boundary between knowns/unknowns, forecasting a future direction of inquiry (research).

Primary Acts evaluated for each student:
        Leading Discussion of Primary Literature
        Literature-based Formal Presentations
        Literature-based Review and Proposal of Future work
        Reflective writing

Signature Work???   *Sometimes*, but *always* a function of student self-identification as such.

Assignments scaffolding to help guide students into a best shot at *signature work*:

Course Moodle Site:
>   Exemplars of every major assignment in the class (SO IMPORTANT!!!)
>   Rubrics
>   Evaluation Criteria for every act in the course

Literature Review Paper:
>   Week 1: Discussions of big picture/popular science readings to frame the playing ground of "problems"
>   Weeks 2-5: Instructor/Student selection of literature review to lead discussion with in class (each student is evaluated as a leader and a contributor)
>   Week 5: Paper prospectus due (prior to meeting with science librarian)
>   Week 7: Outline of paper due
>   Weeks 8-9: First version of paper due (graded as final product – no "draft" business) and Individual meetings
>   Week 10: Final paper due

Literature Review Presentation:
>   Week 5: Instructor exemplar presentation
>   Weeks 6-7: Individual presentations of research articles (peer evaluations, self-evaluation of video recording – graded work)
>   Week 10 – Finals slot: Final presentations

I used one source to develop the assignment scaffold leading to the final literature review in this course. This book is amazing!

>   John C. Bean in Engaging Ideas: Bean JC. 2011. The Professor's Guide to Integrating Writing, Critical Thinking, and Active Learning in the Classroom. 2nd ed. San Francisco: Jossey-Bass.