

CHALK

TEACHING & FACULTY DEVELOPMENT

[ASSESSMENT/ENGAGEMENT/IMPACT:
RESULTS FROM TWO MULTI-
INSTITUTION COLLABORATIVE STUDIES]

By Ty Buckman (Wittenberg University)

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This issue features results from two grant-funded, multi-institutional research projects designed to foster and assess innovative and high-impact teaching practices on participating campuses.

In 2005, a newly formed consortium of six liberal arts colleges (MALLA: the Midwestern Alliance for Learning in the Liberal Arts) was awarded a grant from the Teagle Foundation to undertake a large-scale assessment project under the leadership of principal investigator Dr. Michael Nolan, Associate Dean for Grants and Assessment at Augustana College.

“Measuring Intellectual Development and Civic Engagement through Value-Added Assessment” proposed to identify and measure improvements in key metrics related to critical think, writing, and civic engagement in students from the six participating institutions.

Although I knew of Wittenberg’s inclusion in the MALLA group, I did not have the chance to meet Mike and engage with the research project until 2007, when I served as chief reader for a holistic scoring session at Luther College that brought together faculty from the six colleges to read and score sophomore and senior essay samples. Mike was one of the first administrators I had met who was constitutionally incapable of pretense, small talk, and reading from cue cards. Even when he knew better, he told the truth. As I write these lines, my great regret is that I did not have the opportunity to introduce more of my friends to Mike, as I know many who would have treasured the chance to share a pitcher with such a wise, generous, and wry colleague.

As the first MALLA grant drew to a close, Provost Ken Bladh of Wittenberg University secured funding for a second round of research with a slightly modified group of colleges, this time taking up the question of designing faculty work to achieve the kinds of learning measured in the first MALLA grant.

The two MALLA grants together chart a course that, in my opinion, campuses like Wittenberg should have pursued in earnest twenty years ago. The days when every small college or university could function in effect as its own city-state, living by its own rules, occasionally trading with its rivals but more commonly skirmishing with them, have long passed for most of us. As Victor Ferrall, Jr., President Emeritus of Beloit College argued in his book *Liberal Arts at the Brink*, “collective action on behalf of liberal arts education is the colleges’ only hope [...] and it is a slim one” (159). It might well be too late to secure our collective future by working together to improve student learning, but the aim is no less noble for that. Certainly, the work that our colleagues on the nine campuses were able to accomplish across eight years suggests opportunities for further collaboration and innovation, and it is therefore with deep gratitude and humility that the contributors here dedicate this issue to the memory of our friend, colleague, and leader, Mike Nolan.

[Dr. Michael Nolan: A Remembrance]

By Jason Peters (Augustana College)

In the spring of 1996 I was in the English department office asking the secretary directions to this place or that. A first-time visitor to the city that is now my home, I was looking for housing for the coming year, when in the fall of that year I would start my career at this august institution. Mike Nolan overheard me and stepped out of his office with a phonebook in his hand. He introduced himself, ripped a map out of the front of the book, and handed the map to me. I noticed immediately that he bore a striking resemblance to my cousin, also an English professor, and I mentioned this to Mike. And Mike said, "Huh! Another good looking fellow out there, eh?"

And so began a friendship marked by mutual help and irony. Mike was always poised to lend his hand to what needed doing and his wit to what needed saying. And over the years there was much to do and much to say.

Mike had precisely what you want in a friend: he read all the right books but got all the wrong things out of them, or so said C.S. Lewis of his friend, Owen Barfield, with whom he waged a "great war," as they called it, for their whole lives. Both held that "opposition is true friendship," and what that opposition generated was pretty impressive by any measure.

If Mike and I never exceeded Lewis and Barfield in publications, and it appears we did not, I'd be willing to bet our combined annual raises in the last two years that we exchanged more jokes than any pair of literary friends this world has seen in quite some time. It helps if, like Mike, you find the world utterly amusing—and if, like Mike, you love the writers who also find the world utterly amusing.

We both loved Flannery O'Connor and Walker Percy. The difference between us is that whereas I might mention an anecdote from one of their books, Mike would recite the passage verbatim—or, failing that, pull the book down from the shelf and have the passage before him in a matter of seconds. He had a great memory, a perfect ear for humor, and a keen eye for human folly. Boswell spoke of the manner in which Dr. Johnson relished his food. Mike relished his food all right, but he also relished his books. And he loved all the right ones—which is to say the ones that I love. Perhaps there are many people in the world fortunate enough to enjoy the benefits of a literary friendship such as I had with Mike. I do hope so.

"Friend" is a word I have tried never to use promiscuously. I think a man is lucky to have three or maybe four *real* friends over the course of a lifetime. Anyone who

claims to have more is either a liar or on Facebook. I accounted Mike a friend. I know of no higher honor I could accord him. He had a great capacity for friendship and he knew how to be a friend to many different kinds of people. And he could really talk. He accorded conversation its proper value: the thing upon which, as Aristotle said, friendship is built. He and I disagreed on many things, and we sometimes fought, but arguments were no match for the friendship, which, time and again, tried and proved the old old axiom: that iron sharpens iron.

Immortality was up for discussion almost all the time. I usually held to it, and Mike usually said "Peters, I hope you're right." I would describe him as a man who found belief difficult

but hope pretty easy. And hope, I think, is sometimes good enough. It certainly comes naturally to someone who, like Mike, loves this refulgent infuriating beautiful maddening life. It makes perfect sense to me that Mike loved the works of Flannery O'Connor and Walker Percy and Emily Dickinson—writers in whom doubt and hope were seldom at a moment's truce—and that he tolerated the company of such men as I, whom duty calls on this sad day to affirm this man's fundamental goodness.

There were nights at our house when we thought Mike would never leave. There were mornings at our house when my wife would say to me, "so what time did Mike finally leave last night?" And I will admit to this body here assembled that there were times when I myself wasn't entirely sure, even though I had seen him to the door and had watched as he walked down the street to his house a few blocks away.

And still I'm not sure what time he left. No one is. All we know for sure is that he did in fact leave.

When our first child, our daughter, was born Mike came to the hospital bearing a gift for this nervous ill-prepared first-time father. It was a baby bottle—filled with bourbon whiskey. Who but Mike would do such a thing? And who will do it now that he is gone?



[The MALLA Project]

By Timothy Schermer (Augustana College)

Mike Nolan forged ahead despite knowing he was getting into arduous work as principal investigator for a three-year \$300,000 research project he successfully promoted to the Teagle Foundation. Not only were the research goals for the project ambitious—to study the development of students in writing, critical thinking, and civic engagement by using multiple assessment methods—but the project would be the initial test to see if six similar colleges, somewhat rivals, could collaborate around an extensive cooperative effort by their deans, institutional researchers, and faculty. MALLA, the Midwest Alliance for Learning in the Liberal Arts, was a new consortium of highly selective, Phi Beta Kappa, Midwestern private liberal arts colleges, including Alma College (Michigan), Augustana College (Illinois), Gustavus Adolphus College (Minnesota), Illinois Wesleyan University (Illinois), Luther College (Iowa), and Wittenberg University (Ohio). The consortium was formed to bring the colleges together to share experiences and expertise around the shared goal of providing the best possible liberal arts education, and the Teagle Grant Mike led was its first effort.

Setting aside the research findings from the study for the moment, the project was a resounding success as a cooperative effort. Faculty and administrators from the six schools bonded together to complete a sustained, large scale project that required agreeing on functional definitions of what constitutes good writing, good critical thinking and civic engagement (some wags have noted the rarity of a roomful of Ph.D.s agreeing on anything), to develop instruments and methods for measuring those concepts, to administer surveys and score student work, and to assemble, analyze, and interpret the results. In the process Mike organized and led summer workshops held at each of the six campuses and kept everyone on task with his administrative skill and own brand of good-natured humor. Ultimately, faculty agreed that the chance to work together was one of the most valuable aspects of the project.

Project goals and structure. When proposed to the Teagle Foundation in 2005, the proposal, “Measuring Intellectual Development and Civic Engagement via Value-Added Assessment”, reflected an emerging national concern that colleges needed to do more to validate the “value-added” from a college education. Accrediting agencies sought both direct measures (e.g. student tests) and indirect measures (e.g. student self reports) of experiences and change during college. The Collegiate Learning Assessment (CLA) had gained prominence as a first-year to senior value-added test that could measure growth in writing and critical thinking. As an indirect

measure, the National Survey of Student Engagement (NSSE) claimed that student learning was significantly correlated to student reports of “high impact” practices, such as strong student-faculty interactions, high academic challenge, and active and collaborative learning. In this background, the Teagle project aimed to determine impacts on first-year to senior growth using both “live” student course work as well as a national standardized exam, the CLA, along with NSSE and other direct and indirect measures. During the four years of the project, from 2005 to 2009, the consortium administered the CLA to some 1200 students, read and scored with internally-developed rubrics some 870 student papers for writing and 643 papers for critical thinking, administered the NSSE and FSSE (Faculty Survey of Student Engagement) to explore the use of high impact educational practices, administered to first-year and senior students the national CIRP and CSS surveys from the Higher Education Research Institute, respectively, to gauge changes in attitudes and objectives, as well as reports of college experiences and activities, that relate to civic engagement, and administered an alumni survey to gauge post-graduation civic activities, such as voting and volunteering. Part of our purpose was to compare the consistency of the results from the various assessment methods and explore each method’s challenges and limitations.

Project Findings. Below is a brief indication of some of the project findings relating to writing, critical thinking, and civic engagement.

Civic Engagement. The findings below emerged from analysis of data from first-year, senior, and alumni surveys. As an overall result, the project documented a strong positive impact on civic engagement from a liberal education as practiced at the MALLA institutions. As can be discerned below, a major theme in the results was that positive civic engagement outcomes are often related to “encountering difference,” not only in the sense of demographic diversity (race, gender, sexuality, socioeconomic status), but also attitudinal (religious, political) and intellectual (differing academic viewpoints, conflicting evidence). Technically, the project results came from statistical analysis of correlations among civic outcome scales developed from our surveys using factor analysis. Those outcomes included scales for having civic values, desire for a career that contributes civically, a civic skills self-rating, and reports of growth in civic skills in college. Alumni survey scales related to reports of post-graduate civic activities.

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[The MALLA Project, continued]

Significant correlations suggest that:

- Student characteristics associated with more positive civic engagement outcomes include being racially non-Caucasian, having a religious affiliation (anything other than “none”), and having higher academic ability indicators (ACT/SAT and GPA measures). Gender was not a differentiator, except that males generally rated themselves higher in civic skills.
- The co-curricular activities students engage in can have a significant positive impact. Direct experiences with political, volunteer, community service, or other college groups having a civic emphasis generally have a positive impact. Varsity athletics appears to make some positive contribution to both civic values and civic skills development (we speculate this relates to the building of teamwork skills, working together across diversity lines, and some volunteer projects that sports teams engage in). On the other hand, social fraternity/sorority membership appears to be associated with lower levels of growth in civic skills and higher levels of status career seeking. Although they may engage in community service projects, they may often tend to isolate students into homogeneous groups that give students fewer experiences with students of different backgrounds and opinions, and may emphasize social status over social values.
- Higher civic engagement outcomes were generally observed for social science majors, and lower levels of outcomes were observed for business/accounting and natural science majors. International studies programs that exposed students to developing countries, in particular, had a strong association with higher civic engagement outcomes.
- While a general institutional emphasis on civic engagement is helpful in setting the stage for the development of civic engagement skills and dispositions, variation in civic engagement outcomes was driven mostly by the differences in the experiences of individual students.

The final workshop for our project led to a consensus around the following implications for colleges wanting to develop civic engagement:

- We should value structural and curricular diversity in a broad sense (racial/ethnic, gender, religious, political, etc.). The curriculum and faculty pedagogy should promote student engagement with persons of heterogeneous backgrounds, and confront students with ideas that are different from their own.

- We should encourage activities that promote dialogue with others about social issues, politics, religion, gender, race/ethnicity, and international affairs.

We should value structural and curricular diversity in a broad sense.

- We should promote active involvement in civic activities – volunteer activities, service learning, participation in political campaigns, etc.
- Students may benefit from perceiving an institutional commitment to civic values. Faculty role modeling may be particularly important.
- Students in certain majors, particularly business and the natural sciences, may be missing experiences that would be helpful in developing civic engagement values and skills, and we might investigate ways to encourage their participation.
- Fraternities and sororities may impede development of civic values if they isolate students into homogeneous groups that enable students to avoid exposure to students with different backgrounds and opinions, or emphasize social status over social values.

Writing and Critical Thinking. As mentioned above, the research on writing and critical thinking was based primarily on the use of the national CLA test given to compare samples of first-year and senior students, and on faculty reading of actual “live” papers submitted by students as part of their coursework. Reading papers was the most innovative and challenging of the efforts, involving three summer workshops - one to develop scoring rubrics and the methods and criteria for sampling, one to read, score and compare papers of the 2005 first-year cohort with those of current junior students, and one to read and score papers of the 2005 first-year cohort, now as seniors, for pre/post value-added comparisons. NSSE surveys were used in analysis to explore possible explanatory causes for our CLA and paper scoring results.

To indicate the nature of the project’s efforts, in the workshop reading senior papers the reading was done by 32 faculty from the six institutions from a variety of disciplines, including English (11), natural sciences/math (6), social sciences/religion (7), education (3), speech communications (2), and foreign languages (2). The faculty

[The MALLA Project, continued]

were split into two groups with one group scoring the papers on a writing rubric (WR) and the other scoring the papers on a critical thinking rubric (CT). To improve reliability, each group was led by an experienced leader/trainer that conducted a training session in which anchor papers were read and discussed. Additionally, each paper was read by two readers for each of WR and CT and if the two readers for either rubric disagreed by more than one unit on the overall rating, a third reading was done and the outlier reading rejected. For each rubric scale, the average of the scores from the two closest readings was used in the subsequent analysis. The institutional research offices assisted with data on the student authors for later regression analysis of the scores, including the ACT score, high school rank, college GPA, primary major, and gender. In addition, we gathered for our data base the length in pages of the body of each paper, discipline, date due (to differentiate papers due early or late in the term), weight of the paper in the final grade, whether the paper was revised after an initial instructor reading, and whether the paper was peer reviewed. The samples of papers gathered by institutions were convenience samples – basically what suitable papers the IR director or other administrator involved at each institution could cajole from faculty. The papers sought were of an argumentative type that would demonstrate both writing and critical thinking/argumentation skills. One weakness that we found of this type of study is that the assessment administrators do not have the clout needed with faculty to be able to gather material in ways that would allow for scientifically designed samples. Nonetheless, regression techniques that included a variety of student characteristics (gender, major, GPA, ACT/ACT) and paper/assignment characteristics (paper length, weight in the final grade) proved helpful in adjusting for any lack of sample representativeness.

The rubrics are themselves a significant product of our collaboration that may be of interest to others considering similar work. Faculty vigorously debated the rubric's nuances, but ultimately concurred on a five-point writing rubric going for 1=unacceptable to 5= exemplary that including a holistic rating for an overall impression, and six sub scores. Skipping over most of gradations, the cells of the writing rubric might be summarized in abbreviated form as:

Writing Rubric (Argumentative Paper)

Scale	Unacceptable	Exemplary
Main Idea	Overall position not evident	Well articulated
Argument	No case made	Compelling case made
Evidence	Claims not supported	Claims developed convincingly
Organization	No apparent path from beginning to end	Reader guided gracefully from thesis to conclusion
Readability	Awkward, unskilled, inappropriate tone or vocabulary	Skilled phrasing voice, tone and apt work choices
Conventions	Numerous errors in grammar, usage, spelling that undermine credibility	Few or no mechanical errors
Overall	Writer unable to construct and present a significant position	Writer presents a significant, thoughtful and convincing position

[The MALLA Project, continued]

Similarly, the critical thinking rubric used consisted of a holistic rating and eight subscales that were scored from 1 to 6 with high/low values at three levels: “emerging,” “developing,” and “mastering.”

Critical Thinking Rubric (Argumentative Paper)

Scale	Emerging	Mastering
Problem: Recognizes a problem, question or issue to address.	Does not identify a problem, question or issue.	Identifies the main problem as well as embedded or implicit ones....
Central/Main Idea: Identifies and presents an approach and position to address the problem/issue raised.	No central approach or controlling idea.	Approach/controlling idea addresses the problem in a complex, sophisticated way.
Perspective(s): Identifies and considers salient perspectives(s), positions(s), and context(s).	Deals superficially with a single perspective. Fails to acknowledge other possible salient perspectives.	Skillfully conveys a single perspective and, when applicable, address and accommodates all other salient perspectives well.
Supporting Data/Evidence: Includes supporting data/evidence and assesses its quality.	Provides very little data/evidence.	Provides ample evidence to support position; data is high quality and relevant.....
Depth of thought: Deeply engages the work.	Demonstrates little engagement with the work. Shallow, oversimplified, limited focus.	Engages work fully, pushing to achieve depth and complexity. Complex, sophisticated, imaginative and nuanced.
Reasoning: Employs logic to construct a cogent argument/statement.	Obvious flaws in logic/analysis.	Very sound work, with no or only minor flaws in logic/analysis.
Development: Strategically organizes and styles the work.	Makes sensible choices or organization/genre/media.	Makes appropriate choices or organization/genre/media.
Conclusions/Consequences: Identifies and assesses strengths and weaknesses of choices, conclusions, implications, and consequences.	Fails to identify conclusions, implications and consequences of the main problem.	Identifies and discusses conclusions, implications, and consequences considering assumptions, context, data, evidence....
Holistic Rating: How would you rate this work as a whole?	Emerging	Mastering

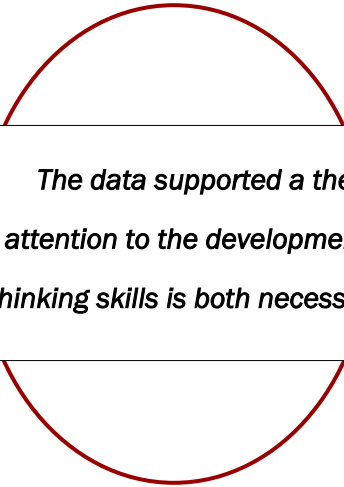
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After a training exercise using “anchor” papers, the rubrics worked well in practice, with few third readings to resolve discrepancies between the first two readers. A factor analysis indicated the holistic and sub scores of each rubric were so highly inter-correlated that they represented only a single factor, however, and might be simplified when assigning scores, possibly to only the holistic score, although consideration of all the sub areas by the reader is likely what leads to clarity and consistency in the scores. In faculty reviews of our methods, it was clear that faculty thought reading of live student work is far more informative than national testing in terms of understanding student growth and adjusting the curriculum or pedagogy, and felt the process contributed to their own professional development.

[The MALLA Project, continued]

Writing and Critical Thinking Findings. Some of the project's findings about student writing included:

- Results varied widely by institution, and enough that some institutional results were questioned for their reliability, particularly when using value-added methods. Questions arose as to whether a high first-year student score might result in a lower value-added pre/post change score due to a ceiling effect or regression to the mean effects. Nonetheless, the data supported a theme that institutional attention to the development of writing and critical thinking skills is both necessary and can be effective. Overall, the MALLA institutional averages from our multiple measures were at or above national averages for writing skills and significantly above the national averages for critical thinking growth (based on meta-analyses by Pascarella and Terenzini).



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- Our two direct measures, the CLA and paper reading scores, aligned reasonably, in part. At the institutional level, the results of the growth measures from reading the papers of the 2005 cohort as both first-year students and seniors showed a correlation of 0.59 between the paper writing average and the CLA Analytic Writing Task average, while the paper critical thinking average had a correlation with the Analytic Writing Task of 0.81. (The CLA Performance Task, however, did not correlate well.)
 - For writing improvement, students identified writing assigned in courses in their major as by far the most significant contributor to writing improvement, much more than from first-year sequences or general education courses. A reasonable inference is that all majors should include significant writing components. Students also identified feedback on drafts from teachers and teacher comments on graded papers as the most significant pedagogical techniques in improving their writing.
 - Average scores on senior papers varied significantly by major. After controlling for ACT/SAT and GPA measures, students majoring in English and foreign languages had higher critical thinking scores, while students majoring in business and education had lower scores.
 - A hypothesis that good writing and good thinking are connected was confirmed in our study, as the writing and critical thinking scores given to senior papers were positively correlated, $r^2 = 0.62$.
- As is hopefully evident from the above, the MALLA institutions and the participating faculty and administrators learned a great deal from the chance provided by the Teagle Foundation to engage in an extensive study of our educational impacts and the merits of various assessment methods. The effort was considerable, and our results were at times confusing and difficult to interpret, but Mike kept everyone on task throughout, and it's entirely appropriate to pay tribute in this journal to his dedication and success in guiding the project as the principle investigator, as well as his career dedicated to teaching writing and championing assessment efforts.

[Reimagining Faculty Work]

By Terry Sparkes (Luther College)

How would we reimagine faculty work if we were to structure it explicitly around student learning?

What if faculty were simply provided incentive and support for experimenting with some aspect of deep-learning pedagogy in one of their courses, and asked to reflect on its effect on their workload as they implemented the new strategies? No overarching design, no requirement that they meet some deanly expectation, no directive other than doing something they hoped would enhance their students' learning?

The original plan at Luther College for use of the Teagle II Funds (on "Structuring Faculty Work Explicitly Around Student Learning") was to develop a radically new semester immersion program that would "break out of the box" of credit hours and provide a kind of intensive, full-time, study-away-at-home experience for a small cohort of students and faculty. For a variety of reasons, this proved unworkable in the short term. But one of those reasons may have been that the idea did not grow organically out of faculty themselves, many of whom were hard at work in exploring innovative teaching in their own courses, where they wanted to continue to devote their energies, sometimes in partnership with colleagues and sometimes on their own. If the purpose of the grant was to explore the effect of pedagogical innovation on faculty time, why not recognize where faculty *wanted* or *needed* to spend their time, and help them do it better?

So, Luther issued an open call to the faculty, asking simply for proposals to integrate one or more high-impact practices in one of their courses. The result: Fifteen enthusiastic faculty members, across the divisions of the college, provided with a stipend, a summer workshop, and periodic conversation together—and the promise of significant innovation across the curriculum. The dean's office and institutional research staff took responsibility for developing assessment tools about faculty time and student learning, in collaboration with our partner schools, and the results were reported to both the consortium and the Teagle foundations. But the significant insights for those of us who teach appear more clearly in narrative form, in the words of the faculty themselves.

It's not possible to report here all of their insights, learnings, frustrations, and accomplishments, but we've culled from their final project reports to give you a taste of the fruits of their work. Some of their reflections point directly to the question of faculty time, work, and trade-offs in their pedagogical projects. All of the participants considered this question, but many in their reflections emphasize other experience or insights that strike us as valuable as well. And so here we introduce each of our group and their projects and invite you to read the excerpts that fol-

low, hoping they will inspire similar exploration and conversation about teaching on your campus.

The cohort and their projects:

The course projects encompassed a variety of high-impact or deep-learning strategies, in many cases more than one strategy per course. The range included first-year seminars, learning communities, service learning or community engagement, collaborative team-based or problem-based learning, undergraduate research, and integrative cross-disciplinary or capstone experiences. The cohort included faculty ranging from fairly new to very seasoned, working alone or in teams:

Eric Baack (Biology) has taught several kinds of courses that involve high-impact practices, including a first-year seminar on the Natural History of Food, a study-away course on Ecology of the Southwest that was a learning community in itself and that linked with a political science course to create a larger, interdisciplinary learning community, and he has guided both directed and independent research. His project focused on developing capstone elements in his upper-level course on Evolutionary Biology, including research and independent projects.

Barb Bohach (Education) and **Birgitta Meade** (Education) proposed creating a collaborative learning community in which they coordinated their courses in social studies methods (Barb) and science methods (Birgitta) for elementary education majors. They planned their courses together and created teams of students who designed and led an interdisciplinary event for local school children, using as inspiration and focus the work of Nobel Peace Prize laureate Norman Borlaug (who grew up less than thirty miles from our campus).

Becky Bowman (Political Science) has integrated team-building exercises in previous courses through debate. For her Teagle project, Becky incorporated a more experiential learning element in her first-year seminar on Politics and Theatre, focusing on utilizing dramatic works to help students explore the feelings and emotions of those engaged in political events.

Jeff Dintaman (Theatre/Dance), **Jane Hawley** (Theatre/Dance), and **Lisa Lantz** (Theatre/Dance) collaborated on a joint project, entitled "*The Assemblage Point: A Learning Community*." The learning community drew students from two courses together into one "team" and aimed at providing experience in team problem-solving, creativity, leadership, and research as the faculty and students worked on all elements of a full-scale theatre/dance production.

[Reimagining Faculty Work, continued]

Don Jones (Economics and Business) and **Jayme Nelson** (Nursing) have developed an interdisciplinary, ethics-based course for our Paideia II program entitled “Got Health?”. For their Teagle project, Don and Jayme developed innovative strategies for immersing students in moral decision-making that involve teamwork, interdisciplinary research, and creative problem-solving—in particular, a kind of evolving, role-playing assignment that assigns students to a “family group” in which they develop identities and face realistic health-care scenarios.

Brooke Joyce (Music) developed an experiential learning course in January term that provides upper-level music majors an opportunity both to participate in performance of contemporary music and to pursue their own creative or research project. The course, entitled “Music in the Shape of a Pear: Contemporary Music Intensive,” incorporates elements of both a learning community and research to provide a rigorous, focused, intensive learning experience.

Ginger Meyette (Social Work) focused on a first-year seminar experience on “Growing Old in America,” seeking to incorporate more active-learning components into the course and to empower the students as college-level, independent learners. She intends to expand on these strategies for the capstone course in the Social Work major, focusing on better integrating the knowledge, skills, and values that students have gained through their coursework with their field experience.

Holly Moore (Philosophy) developed a new course on Philosophy of Art, designing it to reflect several deep-learning strategies, especially experiential and team-based learning. In particular, she developed community-based group research projects that connect a theoretical aesthetics framework to contemporary social issues in the arts through creating opportunities for students to engage with members of the local arts community.

Olga Rinco (Chemistry) directed our semester abroad program in Malta last year, and joined the project to learn more about how various faculty colleagues have employed strategies for learning communities, service learning, experiential learning, and interdisciplinary teaching—since these are all elements of the Malta program and relatively new strategies for her. Her Teagle work focused on experiential learning through the service-learning component of the Malta semester, which engages students in working with African refugees.

Brian Solberg (Health and Physical Education) focused on collaborative problem-solving as a high-impact practice, using a learning strategy in his course on Physiology of Exercise that involves presenting to students a series of “working problems”—that is, real-life scenarios—

that required application of the large volume of content they were learning, in ways they did not have clear-cut answers already in their text or lecture materials.

In his course in advanced Spanish conversation, **David Thompson** (Spanish) explored the question: “To what extent does team-based learning help students, especially first-year students, build self-efficacy and overcome the anxieties associated with enrolling in an upper-division Spanish conversation and listening comprehension course?”. He intends to experiment further with this teaching method for other upper-division Spanish courses.

Conclusion:

The general consensus of the group was that the experience of designing and running their project courses was rewarding and well worth the effort. Faculty perceptions of both student engagement and student learning were very high (and student perceptions were similar). Several indicated that they were excited by seeing students taking risks, and that the students “rose to the occasion” when given some freedom. Not surprisingly, all also found the planning and design of their courses especially time-intensive. The project, they said, provided much need moral support and peer sharing. Virtually all agreed that having the grant structure for conversation with colleagues outside their own discipline, readings, and workshops were a great help.

So, if the question is about how institutions can sustain and encourage the use of high-impact practices, given competing demands for faculty time and sometimes inconsistent reward structures for faculty work, perhaps the best insight we can offer from the project at Luther is this: Ask the faculty what they would like to try, encourage them with monetary and collegial support, ensure that it is valued in the institutional reward structures (participation in a grant or study, such as this project, helps make it visible in departmental assessments and tenure and promotion review), and they will lead us toward deeper and more rewarding work with our students. If you are interested in knowing more about any of these projects or strategies, each colleague would be happy to respond to further inquiry.

[Stories from Teagle II at Luther]

By Eric Baack, Barb Bohack, Don Jones, Brooke Joyce,
Birgitta Meade, Holly Moore, Jayme Nelson, and Olga Rinco (Luther College)

Eric Baack (Assistant Professor of Biology), Biology 354: Evolution

The biology department at Luther College does not have anything designated a senior seminar or capstone course. All the same, I tend to think of my evolutionary biology course as a capstone. Students take it in the spring of their junior or senior years, typically as one of their last courses in the major. Evolutionary biology spans scales, from mutations in DNA to changes in behavior to environmental differences that might affect the consequences of that behavior. This breadth of scale requires students to draw on background from many other courses. Three elements of the course are particularly meant to challenge students to integrate ideas: weekly discussions of articles from the scientific literature; a research proposal, and an independent project. My goal is to have students begin thinking of themselves as creators of knowledge, not merely consumers. If they can read the scientific literature, then they no longer need professors to digest it for them. And if they can propose experiments in response to what they are reading in the recent literature, then they see themselves as potentially part of the scientific community. These aspects were clear in my thinking. The independent project was a minor piece in my imaginings. It was useful, but too small in scale to play as large a role in student learning as the other two components.

The course has three meetings each week, twice for ninety minutes and once for two hours. Although the syllabus labels these times as “lecture” and “lab,” in practice I made use of one or the other for discussion each week. The eighteen students were split into two groups for discussion, with the students not meeting with me working on lab projects on their own. During the last two weeks every hour was devoted to student presentations on their research proposals.

Students had a short writing assignment that was due at the start of each discussion to ensure that everyone had something to say. A key part of this was asking each student to bring a question to discuss, and our discussions began with students writing their questions on the board. Usually, there was at least a question or two that tied to every part of the article, some on the methods, others on the results, and others still on the interpretation. In most discussions, I could move from one question to the next, asking each student to explain the thinking behind the question. Although I was leading the discussion, the student questions set the route. As a result, every student contributed to nearly every discussion.

Student evaluations each year comment on the value of this. Students enjoy the discussions, find them stimulating, report that they have grown in their ability to read and understand the scientific literature. The final exam in the course includes an article new to the students – often one that was just published – and asks them to tackle it. They succeed.

From my point of view, these article discussions are some of the best hours as a teacher each year. The students are engaged, challenged, and growing. While I will spend several hours choosing an article to discuss, reading and discarding nine for every one that I choose, this time is no different from what I would spend to update a lecture. The time spent grading the student written responses is relatively minor – usually just two hours for each discussion. This portion of the course represents a net gain for all concerned: deep student learning without an increase in my workload.

Alas, the research proposal has a steeper cost. The research proposal comes in two parts. During the first half of the semester, students choose a topic, read primary literature, and write a research paper summarizing what we know and do not know. I read these papers and provide comments. This then becomes the introduction to the research proposal, laying out the current state of knowledge. The students then go on to propose an experiment that will add to that knowledge. The experiments must be feasible to carry out at a research university within a year – the sort of project that an entering graduate student might propose.

During the last two weeks of class, students present oral versions of their proposals to the class, laying out the question and existing knowledge, then proposing their experiments. Their peers are assigned to critique their presentations, particularly to offer suggestions on ways to make their summary or proposed research clearer. The complete proposal is the last class assignment.

Student responses to the proposals are more mixed than to the discussion. Some find them incredibly valuable – one of the most important assignments they have had as undergraduates. Many report wanting to carry out the experiments they have proposed. Others find it overwhelming, or a distraction from the discussions of the literature.

For my part, the research proposal is also a mixed experience. Sometimes I have excellent conversations with students as we try to decipher a key article. Often I enjoy having students teach me about an unfamiliar topic. As

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with all writing assignments, providing timely feedback is a tremendous challenge. When the research papers arrive, I set up conference times for the following week, then dive into reading and commenting. Each paper requires close to an hour, if not two hours, of my focused attention; at times I need to read the same articles that students have been reading in order to make sense of their writing. My comments are often organizational – urging students to be clarify their questions, or to rethink the connection between two different ideas. More often, I'm trying to clarify their scientific thinking. Reading the drafts requires the same energy and attention that I would need to write up my own research. Sustaining that focus for thirty hours over the course of one week is a challenge. However, the students respond to the comments: their final proposals are more tightly organized, and more clearly reasoned. For many students, this is the first time that they have written a paper of this kind in science.

The research proposal, then, falls into the type of assignment that is costly in terms of instructor time and effort. The gains in student learning make that investment worthwhile, but there are limits. If the class were larger than 20, I'm not sure that it would be possible to do the research proposal.

The final element of this course, the independent project, only received oblique attention from me. I've heard from students that this course tries to do too much – an accurate critique. The independent project and poster presentation fell at a busy time in the semester. This year, I resolved to down-play this assignment. I told the students that the independent project and poster should be seen as a *small* project, and encouraged them to complete parts of the poster one or two weeks in advance. This would allow them to focus on their research proposals. My efforts to reduce their efforts failed completely. Initially, I was frustrated. I had intended this to be a small assignment, but it had taken far more time than that. However, I realized that this was telling me something important: students were choosing to spend time on an assignment at a particularly busy time in the semester, and for the most part were doing excellent work. I was right to try to reduce the time crunch, but picked too valuable an assignment to minimize.

For this project, students had three weeks. I provided a list of feasible topics; most of the suggested experiments using bacteria, which required few or no new techniques. The students took a broad idea, such as “investigate the effect of altering mutation rates on the rate of adaptation” and figured out the details, such as the strain of bacteria to use, the number of replicates, the trait to select upon, and the mutagen to use. (Even now, as I write this, this seems like a fairly minor assignment. What I forget is

that for the majority of students, this was their first opportunity as undergraduates to design an experiment with this much independence.) Students carried out the experiment, analyzed the data, and presented their project in a poster. Before the presentation, students turned in draft posters and were assigned as critics to other groups.

THE FREEDOM TO
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As I talked to students during the poster presentation, many assured me that despite the time it had taken, it had been worth it. They had taken on the challenge and dealt with their mistakes – the nature of the experiments meant that they were able to deal with most of the mistakes without my help, which may be important. Putting together the poster took far longer than it had to, as most group projects do, but they were of very high quality. The freedom to experiment and to make mistakes was crucial, as was the public presentation of their results.

Perhaps one reason that I thought of this as a relatively minor assignment was that it did not require vast efforts on my part. Helping students finalize their plans took one lab period; a second was spent working with them on analysis. Keeping the lab supplied and commenting on the poster drafts required little time compared to the research proposal. This was perhaps the best assignment in terms of faculty work required for deep student learning.

My life as a professor would be easier if I could substitute a poster for every research paper, but I will not. The larger writing assignment calls for a different type of thinking than a poster; students need to do both. However, I will likely work to balance student time a bit better by removing a less-independent project and its accompanying lab report.

The reimagining that I've done for this course is relatively small: it still fits within the class and lab format of most science classes, albeit one with a small enrollment compared to many in biology. Yet I'm not sure that a more revolutionary approach would have yielded deeper learning for these 18 students. I suspect that there is still life left in courses that challenge and engage, provide opportunities for students to make mistakes and correct themselves, and to demonstrate their thinking to others.

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[Stories, continued]

Holly Moore (Assistant Professor of Philosophy), Philosophy 240: Philosophy of Art

When I joined the study, some of my colleagues were already at work on revisions to prior courses to incorporate more high-impact teaching strategies. I had in mind to use the opportunity of teaching an entirely new course (Philosophy of Art) in an entirely novel style (January Term, 3.5 week intensive course) to also incorporate a high-impact pedagogical strategy, namely with a “community-based” project.

Before planning my course, I began by looking at the text, *Five High-Impact Educational Practices* by George Kuh (2008) in order to identify student-centered pedagogical techniques I might implement in my proposed January term course. I planned to use small groups as well as community engagement as high-impact tactics, both of which are seen to increase student buy-in and self-motivation—aspects of learning that I have been focusing on in my teaching for the past two years. By teaching a new course in a format that was also new to me, I knew I would have a lot of work ahead of me. I decided to focus the experimental part of that work on developing a significant group research and presentation project, using both library research and in-person interviews to get students more deeply engaged with a subject of significance in the local art community.

Because I wanted to focus on something directly related to art in our local community (a town of about 8,000), I decided to speak with one of the directors of the local community art center to get a better picture of the issues at stake there. That conversation produced a lot of ideas, and I recognized that our artists and artisans were already very much integrated into the life of our community. As I continued to learn more, I found that we had a large population of high-quality artisans in various crafts. I decided, then, to focus the group project upon researching the history and status of a particular craft with respect to the rest of the art world, situating that debate within the context of local art practices. To do this, students would make connections with local artisans and interview them to get a sense of their practice as well as their view on the art versus craft debate.

The most difficult aspect of planning the project was establishing connections with local artisans. Luckily, I found a good online database of local artisans, which gave my students many options to pursue. In addition, I made a number of direct connections with artisans, often through cold-calling. I ensured that I had at least two willing artisans on board in each category that students would be researching in their groups. These contacts acted as backups in the case students failed to establish adequate connections on their own. For groups that were

having difficulty establishing relationships with local artisans, I provided a phone number or email and told them the artisan had already expressed interest in working with them.

In feedback on the course, students in the class overwhelmingly identified the interview portion of their research as the most important part of the group project (and often of the course as a whole). They said that it helped them get an inside view of what it takes to be an artisan and inspired in them a great deal of respect for the work, creativity, and virtuosity of the artists they met. In addition, several students recognized that this was an important way for them to make connections with people in the community that surrounds and supports the college but also introduce them to the life and culture of their local environment. As an instructor, I felt that there was a significant depth to students’ engagement with the subjects of their research but more importantly with the stakes of those subjects as a result of their conversations with local artisans. Their perspectives and arguments with respect to the debate were far more informed and generally more sincere than I might have otherwise expected. This, of course, is speculative, as I have not taught the course or subject in any other way before. I have, however, taught other courses where students are expected to take a position with respect to an ethical or philosophical debate, and their judgments are often lacking in nuance and depth because they do not feel a personal stake in the issue. To me, this is the single strongest aspect of community-based learning: it puts students in a better position to feel the stakes of an issue about which they are called to make a judgment.

The most time-intensive aspect of the course was in the planning phase.... In future iterations of the course, I anticipate needing less time to develop contacts and acquiring over time a stronger set of relationships with artisans. Because I had not myself secured all the artisans in advance, students were more responsible for making these connections, and in the end, I believe this was a strength rather than a weakness of the project. In the future, I expect to maintain contact with artisans who were the most successful research subjects for students, but I will continue to ask students to make the connections on their own, as this seemed to give them more ownership of their first-person research.

In this process, I learned that a great deal of structure for the project assignment is essential to student success. Yet I also believe that flexibility and latitude in determining and establishing the personal connections is even more important, as it develops students’ sense of personal involvement. For example, students were required

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to develop a timeline for project completion, which included a hard deadline for first contact with an artisan as well as for having an interview scheduled. Much of this seemed necessary because of the compressed timeline of a January term, but I would maintain this practice even in a semester-long course. Although giving students a great deal of responsibility was important, it was essential to have a backup plan in the case that students were unsuccessful in their good-faith attempts to connect with an artisan.

In terms of faculty work, I think that institutions can support such high-impact practices both by incentivizing the introduction of pedagogical innovations in course development and revision through faculty development funding (e.g., through a stipend and/or workshops) as well as by providing centralized support services, such as administrative support and community connections. While I made use of my existing informal relationships with faculty and community members, I might have had an easier time of it with the assistance of an administrative support center on campus that would facilitate community engagement. Such a resource center would clearly be poised to serve both the academic and extra-academic aims of a college. I am certain I would not have been willing or able to put the requisite amount of additional work into this course had I not been monetarily compensated as part of the Teagle II study. This suggests that without such financial and administrative support, junior faculty, who in some ways are best fit for such pedagogical innovations, are unlikely to invest in producing high-impact learning opportunities.

Brooke Joyce (Associate Professor of Music), Music 239: Music in the Shape of a Pear

During one of the post-project meetings I attended with other colleagues in our cohort, I made the observation that while we as college faculty often believe that what we are doing in our classrooms is focused on student learning, what actually happens in our classrooms is often based primarily on what we, as instructors, want to achieve. In other words, we have an agenda, and the students don't really have a role in influencing it. For some of us, the idea of giving up that sense of control is tantamount to relinquishing professorial authority and rigor; if we let the students set the agenda in a course, we might end up with a dumbed-down, facile educational experience. Although my Teagle project began with the simple goal of building significant independent research time into the syllabus of a specific course, what resulted was a classroom experience in which the students wrote their own syllabus, voted on how the course would be structured, and largely undertook many of the day-to-day course preparations that ordinarily would have fallen to

the instructor. It was by turns an exhilarating, frustrating, satisfying, daunting, and, ultimately, fulfilling experience for both myself and the students who took the plunge.

To briefly summarize, the course was a month-long exploration of contemporary music performance. We met daily for two hours, and usually half the time was devoted to student presentations on particular composers or performers, while the other half consisted of workshops where we attempted to play, sing, or improvise the music we had just learned about. As the course continued, more time was allotted for the workshop component as students were both working on individual projects (either research or creative) and preparing selected music for performance in a public concert.

In the semester prior to the course, I interviewed potential students to discern their level of interest and potential as independent researchers/creators. When it became clear that my class would include only twelve students, and that the instruments and voice types of the students did not make any kind of cohesive ensemble—at least not in any traditional sense—I made the decision to focus on experimental music, which often is designed to be flexible with regard to instrumentation. As I began preparing for the course in the weeks immediately prior, it occurred to me that too much planning, on my part, might result in unforeseen consequences—I didn't know these students well, nor had I or anyone else on campus taught this material before. Without the knowledge of how the students might react to such unfamiliar musical material, the decision to leave many key elements of the course in the hands of the students seemed logical, and, in a strange way, safe. If we're all in the same boat, I thought, why not let the crew help steer the ship?

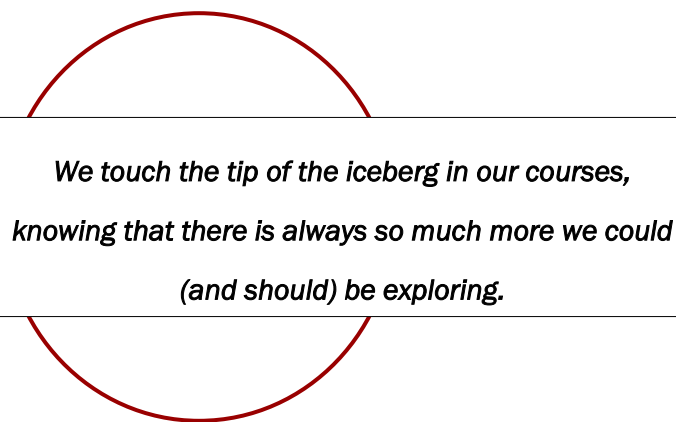
What I learned most from this experience, ironically enough, was not linked to the egalitarian nature of the course leadership, but rather to the independent research element of the course. I had set aside nearly twelve hours of one-on-one time to work closely with each student on their project, which is a degree of intense tutoring that we rarely get to do during a typical course in a typical semester. Very few students took advantage of this time, however, as they preferred to use it to work on their own (or to meet with me for a quick "check-in").

In keeping with the student-centered focus of the course, I did not place strict demands on how students were to use their meeting time with me, but in the future I will find a way to use that time more effectively and intentionally. One idea is to have a preliminary meeting in which I make a plan with each student as to how we will use our tutorial time and how I can best help them with their pro-

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jects. Sometimes, as I discovered, students don't know what they need, or how to ask for it. Sometimes, students don't see how their projects, with a little more time, thought, and guidance, can become transformed, from "good enough" projects to "truly exceptional" ones.



I believe there are several take-a-ways from my project that could be helpful for future curriculum discussions, both within my department and across campus. I will focus on one that seems especially pertinent to music: content. Like virtually every other subject area in the undergraduate curriculum, music is a boundless field of study—we touch the tip of the iceberg in our courses, knowing that there is always so much more we could (and should) be exploring. It is important for expert faculty to help establish some rough boundaries so that students are not overwhelmed. Yet it seems equally important that the students themselves help to fill in some of the gaps. It would be valuable in a music history course, for instance, to have a mixture of content decided and provided by both students and the instructor. While students are not always capable of presenting complex topics to their peers, instructors can help to guide them as they develop lesson plans and presentation materials.

Barb Bohach (Associate Professor of Education) and Birgitta Meade (Instructor in Education)

The interdisciplinary first cousin of science does not always have to be math. Integration of social studies and science content can also provide a robust framework for problem-based teaching and learning opportunities. In an effort to model interdisciplinary and collaborative planning and teaching, we developed a thematic approach to our respective methods courses and proposed a field-based inquiry course for our students. As part of their

coursework, these pre-service teachers designed and taught inquiry-based lessons focusing on local food and agriculture. A primary aim of this course was to support and to develop opportunities for complex critical thinking and questioning while working with local schools in the community....

As faculty members, our collaboration and integration of content created an experience that was not only a rich experience for our students but one for us as well. By creating a partnership, we were able to celebrate our faculty work as colleagues and strengthen our methods courses in ways that connected pre-service teachers to content and children. We felt that creating a learning community focusing on team teaching and content integration provided an experience that was valuable to our role as faculty and to our students as future teachers. This teaching opportunity also allowed us to present our teaching project and model at two professional conferences this year: the Iowa Science Teachers Fall Conference, and the National Science Teachers Association spring conference in Indianapolis.

Although at times this semester-long project was hard work in planning and making community connections, it was an opportunity to provide an experience that impacted student learning on several levels.

Inspirational note: "We often miss opportunity because it's dressed in overalls and looks like work." — Thomas A. Edison

Don Jones (Economics and Business) and Jayme Nelson (Nursing), Paideia 450: Got Health?

We decided to use an innovative strategy that immersed students in moral decision-making using faux "family groupings." Students of varying majors were assigned to diverse, multicultural family groupings and were challenged to work through ethically ambiguous "real life" scenarios related to the marketing of health care services. Scenarios "unfolded" throughout the semester, and students were challenged to make decisions relevant to their "families." The situations provided to students were ambiguous and did not have "right" or "wrong" answers....

It was no surprise that students seemed more engaged with material that they found to be relevant. This pedagogical innovation allowed for students to creatively develop identities that were relevant to their understandings of the world around them. This innovation was unique in that it also required students to grapple with the complexities of understanding and financing complex medical

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scenarios. Students received a “family situation” that included demographic and financial data that may have been radically different than their own backgrounds. They creatively developed characters within the demographic framework that both integrated unique aspects yet allowed for the development of personal relevancy. It was interesting how deeply the students identified with their “family characters” and how invested the students became in working through interpersonal problem solving and decision-making within the family dynamic. Family identities and alliances fluidly evolved over the course of the semester as different challenges were presented. The coherence and identification of the family group as “family” was interesting to observe. This innovation was unique in that it fostered “real life” understandings as they unfolded over time. Utilizing the course of a semester for unfolding family scenarios fostered deeper reflection and understanding of others and often-differing beliefs.

The development of family groupings is but one pedagogical mechanism that can be utilized to contextualize and personalize the teaching of complex interpersonal decision-making. Certainly “role-playing” is a well-accepted mechanism for gaining understandings about other perspectives. As faculty work to engage students in deeper learning about complex situations that have powerful communication concerns, evolving and unfolding situations that involve “family dynamics” can help call into question issues of a deeper nature including issues of inclusivity, power, gender, and bias. The artificial family group with evolving story lines is but one technique to add relevance, creativity, and application of theoretical understandings to every-day perspectives.

Olga Rinco (Associate Professor of Chemistry):

Malta Semester Abroad

This course was ideal for the goals of the Teagle project because the service-learning portion of the course was a high-impact practice on its own. I was interested in looking at how best to manage the faculty workload while maximizing the benefits for the students. Using the time with the Malta refugees as the basis for the class allowed for one of the most life-altering experiences we all had while studying abroad, and I believe that says a lot. Focusing on student learning and student outcomes, I put most of the work for this class in the student’s hands. We

did have a course text book (Human Cargo, by Caroline Moorehead) that we used, and it was an excellent resource. The stories and situations in the text were so real that they were difficult to read. This in and of itself would have been a powerful learning experience. However, adding the high-impact practice of service learning made the experience real and undeniable. Though we were discussing refugee situations in completely different parts of the world (sometimes back home with the US/Mexican crisis, sometimes in the Middle East with Israel/Palestine etc.), the situation was that much more real because weekly we interacted with people living the situation we were reading about. I put in a lot of time for this course, mostly in the travel to the centers, but just like the students, the time spent on this course I would not trade for any other experience, and thus I didn’t consider the “load” of this course very high at all. I set readings and facilitated discussions, but that was a very light load compared to normal lecturing.

One of my most surprising discoveries in teaching this course was the amount of knowledge that was gained. I was of the opinion that there would be much less “learning” in a service-learning environment, but now when I look back on the semester experience I think that some students learned more in this course than they did in any of their “lecture” courses in Malta. We learned about global geography, politics, economics, and history in reading the stories of displaced people. In addition, weekly the students read external information to be fully informed on the times and places we were discussing, and inevitably, every week we somehow brought the discussion back to our own realities.

I would share with other colleagues to put aside notions and ideas of what these high-impact practices are before you try them. Also, put aside a stringent idea of what a successful learning outcome will be. As a “classic” or “traditional” science professor, I am used to having to teach a prescribed amount of “information.” This has its place, to be sure, but the amount of learning and growth I saw in my students in Malta and in this service-learning experience re-enforces my love of the liberal arts. To be well-rounded people, I think we need to “know” things, but we also have to “experience” things and learn what that means to our lives. Also, studying what “other people’s” lives are like allows us a much greater appreciation of our own and a chance to reflect on how to live our lives with meaning and commitment as global citizens.

[The Immersion Term Experiment: Reflections, One Year Later]

By Ian Harrington, C. Kevin Geedey, Heidi Stori, and Reuben Heine (Augustana College)

A year has passed since we completed the second and final offerings of our immersion terms (IT) in Neurophilosophy (IH & HS) and Hydroecology (RH & KG), and this would seem to be the appropriate time and venue in which to reflect on our experiences. These ITs, supported by a grant from the Teagle Foundation, were framed as an experiment in which we could reimagine our teaching and our students' learning. A related objective of this teaching experiment was to determine whether this form of high-impact learning experience could be implemented in a faculty-workload-neutral manner. In the ITs, we were not simply to offer our respective courses in parallel, but to weave our disciplines together into a novel interdisciplinary whole. This opportunity seemed like the natural next step for two of us who had previously offered a learning community (LC) that paired our classes in Brain & Behavior (IH) and Philosophy of Mind (HS). But, frankly, one didn't need any previous experiences with LCs to appreciate the potential benefits of an IT, and the two teams committed to a pair of offerings in successive years. In this paper, each team will first describe an "amalgam" of their IT. After describing the motivation, organization, and operation of each IT separately, we will conclude with a joint commentary on our experiences. It is likely fair to say that although neither of the individual offerings of either IT fully achieved the ideal described here, at times each came wonderfully close.

What was the course about? In the Neurophilosophy IT we considered both the philosophy of neuroscience and the neuroscience of philosophy. In the former, we examined the philosophical assumptions of neuroscience. For example, does the "emergence" of higher order consciousness from the brain entail a sly form of dualism? In the latter, we "reduced" traditional philosophical concepts of mind, self, and the person-making characteristics of rationality and emotion to their neuroscientific cores. Along the way, we also noted important moments in the history of our respective disciplines and kept an eye on actual and potential ethical dilemmas in the study and practice of neurophilosophy. Students received credit for Brain & Behavior, Philosophy of Mind, and Life & Death, with 3 additional credits assigned to the immersion itself.

How was the class organized? We had the opportunity to meet daily from 9:30 am to 3:30 pm. This was possible because the IT carried a load of 12 credits (a 4-course equivalent, see above) and students were prohibited from registering for additional coursework. Both offerings of our IT were smaller than our normal standalone classes with <17 students in each one (as compared to 25-35 students

per class), and tended to attract motivated students in their second and third years. A majority of students who participated in the ITs were, or would subsequently become, neuroscience majors.

We also decided that our calendar would be largely open. The motivations for this open calendar were both practical and ideological. In the interests of developing a meaningful community within the IT, we wanted our students to play a role in deciding course content. One extension of this approach was to eliminate the textbook for the neuroscience portion of the class and, instead, provide foundational information via lectures and readings. From our perspective, this was liberating. Nevertheless, we found by the second offering that it was necessary to prepare students ahead of time for this course characteristic. Our students generally like to know what they are going to be doing and when, but most of them came to appreciate the spontaneity and reactivity this class format engendered.

How did the class operate? Early portions of the class were focused on foundational and historical issues, with the middle and later portions focused on more contemporary and, finally, ethical issues. In the beginning, the instructors played a central role in guiding the discussions that filled most of our class time. By the end of the term, however, it was not uncommon for the students to take complete responsibility for the discussions, often trading places with the instructors at the front of the room. These and similar behaviors were indicative of the kinds of meaningful investment in, and personal responsibility for, their education that we had hoped the IT would promote in our students.

One of the IT's more distinctive student activities was dubbed "the unique contribution." At the beginning of the term the students were informed that they were each expected, at a time and on a topic of their choosing, to make a presentation of personal interest and with relevance to the course. Among other things, these unique contributions included a magic show, an introduction to meditation, and a presentation by one student about his own struggles with a psychological disorder. Some of these contributions, particularly the more personal ones, were not the kinds that could, or perhaps even should, be made in more traditional classes. It was only because the students and instructors had come to know one another as well as they had that this kind of disclosure was possible.

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[The Immersion Term Experiment, continued]

Our IT also had an off-campus, late-term experiential component. In the first year we attended a 2-day conference on brain injury, and in the second we attended the 2-day Nobel Conference, *The Brain and Being Human*, at Gustavus Adolphus College. Before attending this latter conference, whose panelists included experts in neurology, neuroscience, neuroeconomics, and neuroethics, groups of students were assigned one of the panelists and asked to provide a context for the presentations we would see. The students described their attendance at these conferences as among the most meaningful experiences of a term full of meaningful experiences.

We also thought it was important for us to broaden the reach and impact of the IT. In addition to visits with and from various experts in neuroscience and related fields, we engaged in educational outreach in a local school with an aim to excite younger students about neuroscience. To this end we developed a reverse science fair in which small groups of our students prepared brain-related teaching exhibits and the middle-school students they visited voted for the exhibit they liked best. This project was so successful that it will serve as a model for the Brain Awareness Week outreach program we plan to develop with our neuroscience majors in the near future. In addition to in-class brain and eye dissections, we were also able to watch as a human brain was removed in the College's cadaver lab. Finally, one of the IT groups was able to assemble do-it-yourself bio-amplifiers (www.backyardbrains.com) and record the electrical discharges of neurons in the legs of cockroaches. These experiences would not have been possible if not for the flexibility we were afforded by our extended class time and by the absence of distractions in our students', and our own, schedules.

One final matter concerns student assessment. At the beginning of both offerings, students pressed us for clarity regarding measurements of their success. How would we be grading them? Our initial response was to ask them to consider the sorts of behaviors they thought were indicative of success. This was meant to foster a greater sense of personal responsibility but it also fostered some resentment. The resentment was not universal but it suggested that we should provide more frequent feedback about performance. In the second offering, therefore, we addressed this concern by providing periodic written assessments to each student that were jointly authored, and included a grade range for their work to date. The feedback was meant to be both descriptive and prescriptive, and many of the students made concerted efforts to improve in those areas we identified as needing improvement. We were surprised

that many of our students found the degree of freedom the IT offered so overwhelming, particularly at the outset.

What was the course about? The Hydroecology team (RH & KG) drew inspiration from the emerging field variously called hydroecology, ecohydrology, or hydrobiology. Hydroecology is an interdisciplinary approach to understanding aquatic ecosystems, drawing from both hydrology and ecology to understand aquatic ecosystem processes. Students who took our IT earned credit for four separate courses: water resources management and geographic information systems (GIS) on the geography side, and aquatic biology and special topics in biology on the biology side.

How was the class organized? This collaborative opportunity was made even more interesting by the freedom offered by the IT model. Since students would only be taking the IT, we had unprecedented freedom to maximize students' experience with the way real environmental scientists work. Reflecting on our prior teaching experiences, we realize that students seem to learn the most and be most engaged when they work on self-designed projects and when they can actually spend the time needed to see their ideas come to life. The traditional schedule is a barrier to this kind of open-ended inquiry, since students always need to rush off to another class or activity. We decided, therefore, to anchor our IT around a core project, which was a large-scale research project undertaken by the entire class. Our criteria for selecting these projects were that they had to integrate geography and biology congruent with the field of hydroecology and, more importantly, the projects had to collect data that someone outside our institution wanted and needed. For both iterations of the term, we established a relationship with a scientist outside the college who helped shape the class project and met with students to explain the utility of the research. We also made the decision to select projects that were not the subject of prior research by either faculty member; this meant that the projects were as new for us as they were for the students. We stressed the authenticity of these experiences early on in each term. The core projects were not just practice exercises. Rather, our students acted, with supervision, as scientists.

In 10-11, we collaborated with Ken Fritz of the Environmental Protection Agency to test methods for assessing the permanence of headwater streams (Fritz et al 2006). Headwater streams are vital components that link landscapes to water quality. Students practiced a modified version of the EPA method before applying it to scores of streams in Rock Island County, Illinois. The results of

[The Immersion Term Experiment, continued]

this project were a model that predicted the prevalence of headwater stream in Rock Island County, and this model generated what is likely the most accurate map of these streams available. In 11-12, we collaborated with Jon Duvjonck of the US Fish and Wildlife Service to perform a survey of freshwater mussels in the Mississippi river at the site of a proposed new I-74 bridge linking Moline, Illinois, and Bettendorf, Iowa. Students spent many days learning how to properly handle and identify local mussel species and spent several intense days performing the survey, followed by many days of data entry and analysis, the results of which were given to the USFWS.

OUR STUDENTS GOT TO EXPERIENCE RESEARCH AS A PROCESS, WITH ALL ITS ATTENDANT JOYS AND FRUSTRATIONS

How did the class operate? The value of the core projects was apparent in that students produced high quality results in both terms. Given the large amount of field time needed to pull this off, this simply could never have happened in a regular class setting. Students and faculty routinely put in eight-hour or longer field days. Our students got to experience research as a process, with all its attendant joys and frustrations. We all got to spend beautiful (and long) days in the field and saw rare and endangered species, but we also had to troubleshoot methods and equipment on the fly, spend hours error checking spreadsheets, and performed some analyses over and over again. The benefit of our approach of not having the core project based on either professor's research also became apparent. We lacked easy answers for problems, and we, like our students, were stumped when methods that sounded good on paper ran up against real animals and real streams in the field. This gave us the opportunity to work with these students as colleagues, and model problem solving in real work where the next step in a project isn't clearly defined in a pre-packaged lab exercise.

In addition to the core project, students worked in small groups to come up with their own research projects. Some of these projects turned out to be insightful follow-ups to the core project, while others struck out in completely new directions. Faculty involvement in these projects was as more of a mentor than a colleague.

Although these core and small group projects had a large footprint in both terms, not all of the elements of the

hydroecology IT were non-traditional. Students completed a set of lab exercises similar to those they would in a stand-alone aquatic biology class, and students did in-class tutorials and problem sets that increased their mastery of a wide range of GIS applications, thereby assuring that their expertise was not limited to the tools used in the core and small group projects. Finally, students read textbooks and took exams over content and concepts traditionally covered in water resources management, aquatic biology, and GIS. All in all, we spent a great deal of time on lab, field work, and data analysis, which inevitably left less time for lecture. We relied on students reading and mastering a great deal of content on their own (especially for aquatic biology and water resource management). We administered online surveys asking students which parts of the reading for the day they found most difficult. We focused our limited discussion time together only on the most difficult concepts. Once students understood these expectations, they performed as well on content-based assessments as students who received more traditional classroom lectures in stand-alone versions of the same courses.

Student response to the IT was positive. Many students noted that they were initially intimidated by the scope of the class, but their self-confidence grew dramatically and they were proud to have contributed to projects that made a difference.

General Reflections: Although the two ITs differed in their subject matter and the details of their daily operations, there were commonalities of experience to be found. Central to both ITs was the modeling of interdisciplinary inquiry. In the hydroecology IT this was accomplished with a term-long research project (as well as smaller student projects) that bridged the instructors' areas of expertise, whereas in the neurophilosophy IT this was accomplished through intensive discussion of relevant work in the natural sciences, social sciences, and humanities. Both ITs were also successful in fostering a collaborative environment and a strong community. In fact, this class format seemed particularly effective in promoting engagement in students who might otherwise not have been so engaged. In a context like this, every last student was expected to make a sustained contribution to the community and almost all seemed willing to do so.

Despite the benefits of the IT described thus far, there were some important challenges of the IT for students and faculty, alike. Some students commented that they were unable to maintain their usual work schedules or to keep up with some of their extracurricular activities. Be-

(Continued on page 19)

[The Immersion Term Experiment, continued]

cause some of us think our students are over-extended with voluntary extra-curricular obligations, their inability to work was certainly the more troubling of these concerns. Our extended daily meetings did not mean that students and faculty were “free” otherwise. Class preparation presented a tremendous burden both in the more “reactive” format described for neurophilosophy where decisions about the given day’s activities were often made the night before, or because of the demands of executing research projects in hydroecology (among others). Personally, this meant more late nights and less time with our friends and families. Faculty were often less able to keep up with their service commitments including committee involvement and student advising. As an experiment in workload reduction, therefore, the IT might be classified as a resounding failure. However, as might be expected, these demands were somewhat lessened in the second offering of the ITs, though not radically so. This was because the second ITs were not offered as “encores” of the first. In order to model actual engagement with our respective course content, we found it most effective to grapple with new questions and ideas each term.

For those considering offering experiences like these on their own campuses, we might offer the following. In

some ways the IT is all about time and focus. The IT is a commitment in every sense of the word and you need to be clear with students about the expectations you have for their availability, and your own, and keep distractions to a minimum. Similarly, instructors require adequate development time and resources. Be flexible. If your goal for the IT is to model inquiry in its many forms, students and faculty need the flexibility to follow the questions they identify as most interesting to their necessary conclusions. Although many students will bring with them a habitual tendency to be passive, most will embrace appropriately structured opportunities for independent activity. Not only do ITs and other interdisciplinary activities present us with opportunities to see our own work differently, they also present us with opportunities to see our students differently and, in turn, for our students to see themselves differently. Beyond simply being teaching and learning experiences, ITs are an amazing form of faculty development. There is no question that these experiences are costly, but they provide great benefit, too. Ultimately, we (and our respective administrators) need to decide whether the benefits are worth the costs. In other words, we have to decide the “value” of these experiences, and in making that decision we will reveal our own values.

[Quantitative Analysis of City-Wide Trends]

By Diego Mendez-Carbajo (Illinois Wesleyan University)

Background

In the fall of 2010 Professor James Simeone, Illinois Wesleyan University (IWU), Department of Political Science, and I proposed to incorporate into a new spring semester course in Economics a local internship opportunity extending into the summer months. The course, *Applied Time Series Analysis*, and the associated internship would tie an empirical research project to a community outcome. Our proposal tapped into the expertise of the Action Research Center (ARC) at IWU in order to select research topics, coordinate with local organizations hosting the interns, and supervise and evaluate the internship work. The proposal was funded with a small seed amount in the spring of 2010 and the project was fully implemented in the spring-summer of 2011.

Timeline

The project “Foreclosures in McLean County: A Community-Based Research Project” was funded with a \$1,000.00 grant by the ARC at IWU during the summer of 2011. This project studied the presence of patterns in the historical evolution of foreclosures in McLean County as well as their correlation with financial and labor market indicators. A research team composed of an IWU faculty

member, Associate Professor of Economics Diego Mendez-Carbajo, and a student, junior Economics major Jake Mann, completed the following tasks:

January-April 2011: Jake Mann enrolled, along with a group of his peers, in the course *Applied Time Series Analysis*. By the end of the semester, showing great interest in the material, he successfully applied to a summer-long internship with the ARC. The internship provided the student with a stipend to cover food and lodging expenses.

May-June 2011: Compilation of a data set of mortgage payment defaults (i.e. *lis pendens*) and residential mortgage foreclosures from the McLean County Recorder’s Office online database.

July-August 2011: Statistical and geographical analysis of the aforementioned data set.

July-October 2011: Presentation of preliminary findings to local groups of businesses, non-profit organizations, and academics:

(Continued on page 20)

[Quantitative Analysis, continued]

July 7: Town of Normal, IL.

August 11: interview with *WJBC* radio station.

August 15: interview with *The Journal Courier*.

August 18: interview with *WGLT* radio station.

August 31: Economic Development Council of Bloomington-Normal research staff and Provost and Dean of the Faculty at IWU.

September 9: Town of Normal, City of Bloomington, McLean County Assessor's Office, West Bloomington Revitalization Project, Illinois People's Action, Heartland Bank, Action Research Center.

September 13: State Farm Bank, State Farm Insurance.

September 21: Economic Development Council "Bloomington-Normal by the Numbers" quarterly event (as key note speakers) and President of IWU; interview with *WGLT* radio station.

September 23: SPAN 240, Spanish for Social Justice, presentation at IWU; interview with *The Pantagraph*.

September 29: Sunrise Rotary Club of Bloomington-Normal.

October 3: Faculty Non-Org Presentation at IWU.

October 26: Economics Society presentation at IWU.

September-December 2011: Jake Mann developed an independent Senior Research project focused on this topic.

December 2011: Submission of proposal for student-led presentation of preliminary findings at the peer-reviewed 2012 Midwest Economics Association Annual Meeting. The proposal was accepted.

January-April 2012: Jake Mann developed a Research Honors project focused on this topic. This project was chaired (i.e. supervised) by one faculty member and co-evaluated by a committee of three additional faculty members.

March/April 2012: Student-led presentation at the 2012 Midwest Economics Association Annual Meeting, Evanston, IL.

April 2012: Jake Mann successfully defended his advanced research project and received graduation research honors. Jake graduated.

Reflections

Regarding the experiential student learning outcomes of the project, I will address the four main goals outlined in its proposal:

- **Communication:** Throughout this project the student was exposed to a variety of audiences with whom to communicate. Springing from a faculty-student communication dynamic during the data-collection and preliminary analysis phases of the project he was exposed to the challenges of translating a series of statistical findings into "sound bites" suitable for press releases, radio interviews and newspaper articles. Simultaneously, the student refined and mastered the techniques of professional-grade oral presentations, where the qualities of clarity and audience engagement are paramount. As the audiences of these presentations were varied the presentation format and depth were fluid and appropriately challenging. During his last semester on campus the student communicated the findings of his work to the Economics community at large through his participation in a peer-reviewed academic conference.
- **Community perspective:** This project exposed the student to the different perspectives that any and all social sciences research project is, by its very nature, associated with. The exchanges with the local government agencies, banks, and non-for-profit organizations have enriched the project, sometimes giving it new directions. For example: non-for-profit organizations emphasized the role of labor markets in explaining the phenomenon at hand; local governments focused on its spillover costs; local financial institutions zeroed into its structural determinants

[Quantitative Analysis, continued]

and forecasts. That many of the questions and comments gathered throughout the life of the project pointed in so many different directions and were, in some cases, contradictory, proved to be a great learning opportunity. Finally, as the student wrapped up his studies at IWU, he engaged the at-large academic community in the Economics discipline through the presentation of a scholarly paper at an academic conference.

- **Service:** This project served the local community by providing a valuable piece of information not previously available. As an official in the Town of Normal put it during one of our meetings “we simply didn’t have the resources to collect and analyze this information” [paraphrase]. That many different local social agents found this information valuable was proven by the attendance levels at the public presentations and by the degree of media attention.
- **Civic engagement:** The project placed the whole research team in a new plane of engagement with the local community. To begin with, the different organizations and agencies that play a central role in the local social and economic dynamics are now familiar on a first-name basis. The feedback received from each engagement with local agents has been very positive, demonstrating our success in engaging their interests and in tapping into their strategic thinking and priorities.

Regarding the effect of this high-impact practice on faculty work-loads I find my original expectations validated for completely unexpected reasons.

First of all, my extended contact with the student during the summer did, in fact, translate into a higher workload, as we scheduled regular meetings to discuss data-gathering efforts and to conduct preliminary statistical analysis of the data. Secondly, this summer project served as a bridge between his work as a junior Economics major and his work in the capstone experience of the senior year, *Senior Project*, and towards receiving academic Research Honors at graduation. Here is where the unexpected benefits from this project accrued. It was the in-depth and summer-long engagement with both the theoretical and applied aspects of the major that carried the student’s educational experience far beyond that of his peers in the Economics Department. In other words, the hours spent working with the student between May and August of 2011 translated into a lightening of my responsibilities supervising his work between September 2011 and May of 2012.

Not only that, the student distilled our summer collaboration into novel and unique learning opportunities. For example, over several months the two of us shared our findings with the local community in a variety of venues. We delivered seven different presentations to local government officials, financial institutions and non-for-profits; four different local media outlets have reported on our efforts; and in three different occasions we have presented to different members of the IWU community what we learned from this collaborative experience. Lastly, as mentioned above, the student participated in the professionally-reviewed 2012 Midwest Economic Association Annual Meeting where he presented his academic Research Honors paper.

Conclusions

The linking of class research to a community-focused project offered a unique opportunity to pursue a wide range of general education goals. We frequently speak of the goal of critical thinking, but a project of this nature forced the student to think in real time with fresh problems generated by live community partners. We often hope that students would be able to integrate the variety of skills—quantitative reasoning, clear writing, and effective communication—they learn in the classroom, and applied research projects of this nature require that students develop and put these skills to simultaneous use. Finally, student learning is reinforced by having a relevant audience of community actors to whom they are accountable.

In my opinion this project achieved its experiential student learning goals. Although I cannot claim any direct responsibility or influence, as this project was coming to an end the university announced a donor’s gift to endow student-faculty research collaborations during the summer. A total of 40 applications were received for five grants/fellowships. The Economics Department itself, and here I can claim involvement with the Development Office, just received a separate gift to endow such a grant/fellowship starting in the summer of 2013. I also believe that because this project proved to be a new and exciting avenue of work it engaged new students the following year. In fact, two students collaborated with me in the extension and expansion of the research question developed during the second half of 2011. In conclusion, although this high-impact practice has not reduced my overall work-load it made it much more rewarding.

[The Shelf Life of Rubrics]

By Rick Incorvati and Michael Mattison (Wittenberg University)

A man cannot say, "I will compose poetry," for the mind in creation is as a fading coal, which some invisible influence, like an inconstant wind, awakens to transitory brightness. This power arises from within, like the colour of a flower which fades and changes as it is developed. —Percy Shelley, "Defense of Poetry"

The publication histories of some familiar guidebooks for writers might lead a person to suspect that the principles of good composition approach agelessness: Joseph William's *Style* is now in its fourth decade and its tenth edition; William Zinsser's *On Writing Well* remains in print since it first appeared in 1976; and Strunk and White's *Elements of Style* will soldier on to the century mark in five short years.

For some writing teachers, the staying power of such guidebooks might also confirm a deeply felt suspicion that, for all the recent innovations in pedagogy, a large part of their work remains unchanged. The comments that issued from the Harvard faculty in 1872, when their

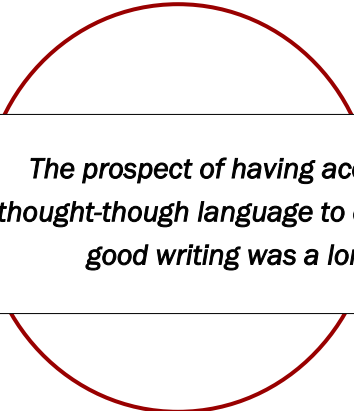
features of a given assignment, the learning goals of a certain course, or the skill levels of a given student population. But other rubrics are intended to be more broadly applicable, and for one reason or another, none of these tools has been particularly resilient.

The examples of transience in the life of a rubric are manifold, though not all stories unfold the same way. One noteworthy approach to rubric development and application played itself out in an inter-institutional assessment pioneered by Michael Nolan, Provost of Augustana College. To facilitate the writing assessment component of this project, Nolan arranged for instructors from all six participating institutions to compare their practices and develop a rubric equal to the task of evaluating writing samples representing a variety of disciplines and a range of academic levels, from students in their first days on campus to juniors immersed in their major fields of study. The result was a "Writing Skills" rubric that measured seven aspects—Main Idea/Thesis, Argument, Evidence, Organization, Readability, Conventions, and Overall Impression—on a five-point scale, from "unacceptable" to "exemplary."

Nolan had no intentions of developing a rubric that might have a life beyond the three-year, multi-stage assessment project that he helped design and implement, but the exceptional creative process that he facilitated did yield a rubric worthy of application in other arenas. Here, after all, was a resource that expressed the qualities of good writing as understood not just within one classroom, one department, or one institution. This rubric captured standards representing the combined sensibilities of writing programs at like-minded institutions across five different states. Here was a guarantee (or at least a promise) that the qualities promoted in a communication class in Ohio or Michigan would also meet the approval of a historian teaching in Iowa or Minnesota.

At Wittenberg University, we used that rubric—and the story of its development—to encourage continuity in a writing-across-the-curriculum program. We held workshops to introduce the rubric to faculty teaching in an interdisciplinary first-year seminar program, we integrated the rubric into a presentation on writing and speaking standards, we included the tool in a series of assessment exercises for composition instructors, and we promoted its use during a campus-wide faculty retreat. To a great extent, this tool was welcomed by instructors, particularly those who had significant writing components in their first-year seminars. The rubric was also appreciated by conscientious instructors who often felt out of their

(Continued on page 23)



The prospect of having access to such carefully thought-through language to describe the qualities of good writing was a long-awaited boon.

expository writing program began, have found their way into the comment bubbles of the next generation of instructors. We talk still of a paper's argument, its organization, its evidence, its style, its readability.

But for some reason a similar durability seems to have eluded a tool that many writing teachers lean on most when it comes to communicating their expectations to students: the rubric. For all the apparent consistency of writing virtues across the decades, no single expression of those attributes in rubric form has emerged as broadly satisfactory. To the contrary, it would be difficult to tally the number of rubrics college students are likely to encounter in the course of their education. Some of those rubrics, to be sure, are developed to suit the distinctive

[The Shelf Life of Rubrics, continued]

comfort zone in their writing-intensive classes. For them, the prospect of having access to such carefully thought-through language to describe the qualities of good writing was a long-awaited boon.

Faculty were never required to use the rubric in their writing-intensive courses, and while voluntary adoption likely meant that students would see the tool less frequently, this approach also assured that the rubric would only surface when instructors recognized a useful connection between the standards expressed in that instrument and the kinds of writing they required of their students. We also distributed the rubric in a word processing file instead of a .pdf format and encouraged instructors to adapt the tool to meet their needs and predispositions—which they did. No doubt this encouraged flexibility meant that more faculty and thus more students were influenced by the document; its effectiveness continued well past the ending of the conversation at Augustana.

There is little question that this rubric attained an unusual degree of currency in the writing program, and several factors likely played a role in that success: the awareness of the document's cross-institutional origins, the faculty's familiarity with the assessment venture conducted by a hard-working provost at Augustana, and perhaps the resilience of the document itself all played some role in the Wittenberg faculty's willingness to share the rubric with students, use its language in their instruction, and apply its categories in their assessments.

There is also little question that at this writing—some eight years after the rubric's development—students at Wittenberg encounter that document far less frequently than they did in previous years. Nothing has changed about the language in that assessment tool, nor have the desirable qualities of college-level writing undergone transformation; the faculty are reminded each year (and often each semester) about the document's existence and are encouraged to make use of it for their writing assignments. What has receded, however, is the moment of invention and the University's engagement in an assessment project that gave many of the faculty a link to the process that produced the rubric, a process that gave that rubric a story, an intention and vitality. It's as if the rubric has reached the end of its shelf life and is no longer suitable for classroom consumption.

In fact, in the past year, an ad hoc committee from the English department has worked to craft a new rubric, one grounded in both writing and critical thinking skills; this document has been shared with the department chairs, and it can be seen as yet another iteration, another search after that which we value in student papers. But again, we have not necessarily changed any of those understandings of what we value. The categories in this

rubric—Problem and Thesis; Evidence and Counterevidence; Organization and Coherence; and Style and Writing Conventions—echo closely the previous writing rubric, and we have another five-point scale, this one moving from “emerging” to “achieving.” So why such a proliferation of assessment standards if the qualities of successful composition are remarkably invariable? Why so much reinvention of the wheel? Why is it that the rubric is, in many ways, a perishable item?

One possible explanation for this peculiar proliferation of rubrics, and for the ongoing—and apparently redundant—grappling to express standards that are broadly shared, is that there is something of value within the invention itself.

Percy Shelley may not have had rubrics in mind when he depicted “the mind in creation . . . as a fading coal,” but his image of a moment of fiery activity giving way to an inevitable dissipation of light and heat may offer a way of understanding the need to generate standards afresh. Even if the qualities of good writing and the language used to express those qualities fail to surprise, the process of disassembling, rethinking, and rearticulating these assessment tools may serve the end of keeping the expression shot through with intention. Moments of invention, perhaps, produce language that feels vital. The closer we are to that spark, the more easily we can feel, and share, the heat. Each of us can probably recall the excitement we've felt as we collaborated with others to find the turn of phrase that best exemplified what we meant by “flow” or “organization.” And no doubt many of us have been spurred to return to the classroom by these discussions of rubrics.

Our excitement can then move from our conversations with colleagues to those with our students. We carry the power of the workshop into the classroom. We can even share with students the thoughts from colleagues, an important and ethos-building move especially for English 101 instructors, who often struggle to explain the importance of quality writing to students planning on different disciplines (and careers). Those of us involved in the recent English discussion have picked up our latest rubric with enthusiasm, touting it to both students and faculty and utilizing it in our own classrooms.

Here is the brightness that Shelley writes of, the coal awakened through our conversations and focused efforts (and, unlike poetry, we can say “we will compose a rubric”).

Perhaps another line from Shelley can help us push our thinking, a line in which he distinguishes between a story and a poem: “The one is partial, and applies only to a

[The Shelf Life of Rubrics, continued]

definite period of time, and a certain combination of events which can never again recur; the other is universal, and contains within itself the germ of a relation to whatever motives or actions have place in the possible varieties of human nature.” It is, for Shelley, the story that is partial, grounded in a specific time and place, while the poem is universal. Perhaps we, as instructors of writing, have been thinking of rubrics as poems, meant to be universal documents, containing within them connections to all writers; instead, rubrics might better be thought of as stories, created and meant for a time and place, valuable within that context but also needing to be reinvented and retold. Creating those (new) stories allows our minds to be in creation, allows us to follow the work of Nolan and others, allows us to connect (again) with colleagues and students.

If that were the whole picture, the exuberant proliferation of rubrics would be a condition worth embracing enthusiastically. But there are costs associated with this persistent regeneration, costs that include the (sometimes unnecessary) labors on the part of writing instructors and the lack of consistently expressed standards for students, some of whom may already feel that their instructors fail to explain their expectations clearly. That being the case, a judicious path for teachers and writing program directors may involve the careful cultivation and management of rubric reinvention, management that maintains the vitality of these resources while minimizing superfluous labors and controlling variations in standards that may contribute to confusion.

Based on our experiences working with the lifespan of a rubric—and writing about it now with more hindsight than foresight—we offer a few suggestions that may prove useful in the process of managing that lifespan in a deliberate way.

- *Encourage broad participation in the creative process.* The document Nolan facilitated had the virtue of broad institutional participation and several contributors from each campus who could return with stories of the rubric generation. While grant-funded opportunities like this one are rare, there are prospects within institutions for encouraging broad involvement in the creative process. The most recent rubric at Wittenberg benefits from an interdisciplinary writing program, but the document could still be strengthened by input from other departments. We are trying to set appointments with individual departments to receive their suggestions. Regardless of how the broad participation is achieved, though, the goal remains the same: to include a significant num-

ber of minds in the process of heating up the coal, of firing assessment language with intention.

- *Retain flexibility in the rubric.* Inviting faculty to shape the rubric with their own creative rethinking, particularly for individual assignments, is one way to encourage instructors using the tool to consider (and reconsider) the document’s language actively and critically. And, we also encourage faculty to share that shaping process with their students and to consider the ways that talking about assessment criteria in class can help student writers better understand the standards they are encouraged to emulate.
- *Invite ongoing feedback on the rubric’s virtues and shortcomings.* If critical reassessment continues at the classroom level, limitations in the core document will likely surface over time. The validity of this ongoing critical reassessment can be affirmed by periodically reshaping the core document to reflect the intentions of those who use the rubric frequently and deliberately. Of course, we are still considering the best way to invite and collect such commentary. At Wittenberg, we have an annual faculty retreat each spring, and perhaps we should have an annual session for rubric assessment and appraisal. Assessment workshops in which groups of faculty read common samples and talk through their evaluations can help maintain some vitality in a well-trying tool.

Practical measures such as these are important. But more important is the opportunity to change our thinking about rubrics. We need to anticipate and welcome the idea of wholesale recreation. We need to appreciate the work of maintaining vitality in writing assessment, coming to see it not as a wheel reinvention, but as gathering again to construct a story about our values, to confirm our beliefs about writing. None of the preceding measures will sustain a rubric indefinitely. And while very few busy faculty may be eager to engage in the creative process all over again, the alternative is far less desirable: conducting a composition program or a writing-across-the-curriculum effort with standards that are unclear and lacking in vitality. Telling and retelling our stories takes work, but it is important work, for these are important stories. We need to carve out space in which to tell them.

[Chalk Contributors]

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The Two Projects

MALLA I (2005): "Measuring Intellectual Development and Civic Engagement through Value-Added Assessment"
Principal Investigator: Michael Nolan, Associate Dean for Grants and Assessment, Augustana College
Funder: The Teagle Foundation (\$300,000); additional program and in-kind support from home institutions
Grant Period: July 1, 2005-June 30, 2009
Participating Institutions: Alma College (Michigan), Augustana College (Illinois), Gustavus Adolphus College (Minnesota), Illinois Wesleyan University (Illinois), Luther College (Iowa), and Wittenberg University (Ohio)

MALLA II (2009): "Structuring Faculty Work Explicitly Around Student Learning"
Principal Investigator: Ken Bladh, Provost and Professor of Geology, Wittenberg University
Funder: The Teagle Foundation (\$149,800); additional program and in-kind support from home institutions
Grant Period: July 1, 2009-June 30, 2013
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