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**Ivory Tower to Lighthouse Beacon: Extreme Makeover, Academe
Edition:**

Practical Suggestions for Adopting a Newly Assessed Course

As a young teacher, I had written an article “After the Class Is Over, Then What?” At the time I was disturbed by how little connection students saw between what happened in first year English courses and what they expected to use throughout their lives. Determined to close this gap, I designed my courses with attention to drafting, peer review and authentic assignments. I learned that students could be motivated when they saw the relevance in their lives. If they were going to write a proposal on the job they could see merit in learning how to construct a persuasive document. If they attended a play in production—and this became a regular assignment in our Engineering Humanities class--they could see how their skills in engineering, for example, mattered in the arts. Writing about the play from their “real” perspective led to improved communication because of the authenticity.

I should have asked only what students were doing “After the Class,” but also what were they doing “Before the Class.” This was brought home to me one day as I observed them in a large lecture hall, listening to one of our “Humanities for engineers” lectures. Bored from being told what they thought they already knew or would never need to know, they were text messaging or surfing the web on laptops. They took and sent photos, “googled” and otherwise communicated, researched and documented what had importance to them. As teachers, we need to continually learn what our students are doing Before the class to better reach them. Why not employ “their” technologies in class so that they would apply our objectives in their real world? But could we move from the Ivory Tower model of academe to an image of Lighthouse Beacon, lighting the way for 21st century learners?

The implications are simple, we ourselves must model the lifelong learning we want our students to embrace. That meant I had to abandon the comfort of the classroom and confront a technology that I barely understood. I could not do it alone. The transformation of the First Year writing curriculum also meant a transformation of the teachers. No longer would an

image of “sage on the stage” suffice. We needed to work as a community of learners supporting each other in a brave new world of technology.

The Drexel Environment of Practicality

Drexel University attracts students who have a practical and financial interest in success in the job market because of its reputation as a “co-op school.” Its mission is “To serve our students and society through comprehensive integrated academic offerings enhanced by technology, cooperative education, and clinical practice in an urban setting, with global outreach embracing research, scholarly activities, and community initiatives. (<http://drexel.edu/about/mission.aspx>).” Our academic year covers three ten week terms and allows for three six month periods of cooperative education experience.

Students who enroll at Drexel spend five years getting their degrees including the eighteen months on “co-op.” They know that they will be on the job by the end of the first year thus assignments that have practical and professional implications appeal to them.

English teachers have long recognized that “authentic” assignments involving real world tasks produce better writing because students see the immediate purpose. We also need to emphasize the type of communication skills employed in today’s world while providing the rhetorical skills and literary touchstones that endure. Few employers are asking for the traditional five page paper, long the staple of freshman composition programs. Many are demanding critical reasoning, sensitivity to a variety of audiences, and clarity in communications ranging from memos to presentations to websites. Digital literacies have gained prominence and are being incorporated in K-12 curricula as William Kist documents in case studies of classrooms across the country (W.Kist). Employers are asking interviewees for electronic resumes and portfolios. Blended learning, or a hybrid class, affords new students an opportunity for face to face interaction with peers and teachers, while leveraging their expertise with online discussions and digital resources.

Further motivation for better engaging the practical student likely to attend a cooperative education school like Drexel can be found in the emerging studies of the brains of millennial students. Cathy Davidson has pointed out the communal nature of learning (C. Davidson). Roger McHaney has addressed the new uses of technology in acquiring and sharing information (R. McHaney).

Before the Class?

The teachers to whom I had first proposed a new course pedagogy for the required first year sequence were astonished. How we as teachers learned to teach with a multi-literacies approach using electronic courseware was a journey, as much for us as for our students. Though the plan did not recognize at the time that the team of ten faculty would be modeling lifelong learning, our students were perceptive about our growth and willing to participate in the process. In an ‘aha’ moment.” I proposed “English Alive: A Hybrid Learning Community” as a radical shift in how we teach the first year writing/reading sequence at Drexel University. The technical expertise and the appropriate pedagogy for multi-literacies would be new to some of the teachers, especially me. Others questioned the rationale for the dramatic change in course delivery and in student deliverables.

How to assess such characteristics beforehand, as well as how to instill them, are critical questions for institutions and teachers who must simultaneously engage the students. Blended learning or online courses offer answers that appeal to data gatherers and students. For teachers who must confront new technology, the answer is not so apparent.

A new course structure with its concomitant change in pedagogy had to accommodate the work load of auxiliaries responsible for perhaps a hundred students each term with little incentive to take workshops or study the research. Administrators would have to be convinced that an investment in computers and training in courseware would be useful. In an assessment driven age, electronic data can be gathered, correlated with accreditation standards, compared to a variety of benchmarks and stored easily. Why not prove that we can teach particular communication skills by some rubric that can be tested repeatedly? Such thinking motivated Seton Hall University, for example, when it moved from paper driven data to electronic through the same software we use at Drexel. As they explain, “rubrics have emerged as an evaluation tool. Rubrics set benchmarks and provide a standard for fairly evaluating all students on the same assignment...In addition, rubrics not only provide a vehicle for timely feedback, they can also prepare students to use the detailed feedback for improvement purposes (R.W. Skeele).” In other words, one electronic tool can remind students of course goals, be used by them for peer review, store the data of individual teacher comments yet ensure consistency in grading among various teachers on the same assignment and generate aggregates of data for evaluators.

Engaging Students in English Composition

English Alive provides a multi-pronged approach to engaging students with technology that allows for data gathering necessary for assessment. We focus on authentic assignments drawn from the professions and the use of the full range of 21st century communication technology. We have reduced teacher class time in favor of more student online writing time and first hand experiences. With the help of an enthusiastic IT group and a willing, though occasionally “reluctant” and skeptical faculty, I synthesized much of my research on pedagogy and classroom experience to develop English Alive: A Hybrid Learning Community for students from all majors. The program is built on ‘projects’ that require students to recognize the value of primary and secondary research in something as basic as describing a local community. The class also emphasizes the techniques for clarity in communication, whether the final project is a presentation, a poster or an essay. And we continue our focus on understanding audience in writing and reading.

Some faculty expressed skepticism about the move from the traditional essay paper. But over time, every member of the team came to see the advantage of 21st century media either in course delivery or deliverables. Some of the reluctant teachers became staunch advocates by the end of the year. In June, one such teacher who had scoffed at the idea of posters arrived at the required weekly team meeting with a poster under his arm. He had to be coaxed to show it to the group but finally admitted he had allowed students to do posters, could distinguish quality in a poster and that he was impressed by what he was seeing. I had lobbied for posters as possible projects after a researcher in a major company asked for my help in preparing one for an internal company expo. She had explained that no one had time to listen to presentations or read full reports. A poster would let other departments know what research was going on and they could choose to get more information. Many of the team continue see the poster as a viable project with the same objectives as any other mode: attention to audience, evidence of research and clarity of communication. We have saved some of the best posters to show at conferences (V.M. Arms). The teacher who had scoffed at the idea spent the summer compiling the resources on the website for the expanded group of faculty undertaking the hybrid course.

Of course, not every member of my team embraced the new media with enthusiasm. The online components emphasized interaction, beyond discussion posts. There would be no substituting an up close talking head for a distant person at a podium. The large lecture hall would be replaced by students anywhere they wanted to be with a laptop. Faculty had to think

beyond their comfort zones and usual pedagogical strategies. We compiled electronic resources such as podcasts, Youtube, online journals to supplement textbooks. Many of the teachers who allow multi-modal deliverables agree that our literary training does provide us with the analytical framework to evaluate projects we might not have previously evaluated, such as brochures or posters. Clarity, vivid detail, compelling examples, persuasiveness, high quality research—all of these elements are as important to the new formats as they are to the standard essay paper.

When I wrote “After the Class Is Over,” I conjectured that if students had “a good secretary, their spelling and grammar would be correct. But I expressed a fear that students would not, on their own, pay close attention to the audience they were trying to reach, whether it be subordinate who must follow a directive, the supervisor who must determine if an expenditure is warranted, the customer who must have accurate manuals. What is so striking about the current generation of students—in addition to their easy access to spell checkers and grammar checkers—is how little direction they need from teachers in learning how to use the new 21st century media. They do need guidance on how to communicate with diverse audiences and a push toward thorough research. In other words, “English Alive” encourages teachers to focus on the higher order skills of thinking, research and understanding of diverse audiences in any medium - as texts for comprehension and as deliverables.

Students do need skills that include deliverables such as posters for professional conferences in many fields and generally, have no training to create them. I had first hand evidence of the need when I consulted in technical communications over several summers and had to satisfy the requirements of the NSF grants funding the engineering projects. I worked on Research Experience for Undergraduates (REU's) for various engineering departments and could attest to the importance of posters as critical for informing colleagues of developments and results of experiments at national and international conferences. The engineers had asked that I guide the communication efforts of undergraduates, selected from around the country for 10 weeks of working directly with engineers in the labs Their research culminated in PowerPoint and poster sessions for the entire department. I instructed students on the desirability of validating research, understanding the importance of results whether negative or positive, and assessing the level of the audience by rehearsing with me The engineering departments provided samples of posters presented by engineers at recent conferences and had the resources for students to print multi-colored, graphically complex posters. The only help I could give them was about the

professional communications since I had no knowledge of nanomaterials, biomaterials, etc. These exceptional engineering students made the same mistakes typical of novice professionals, being more interested in what they had to say than in how the information would be received, regardless of media. They designed overcrowded slides and posters with dense blocks of text which we reviewed and guided through revision.

In order to keep the assessment elements consistent regardless of the deliverable, I suggested that we call the assignments “projects” to reflect the diversity of approaches on the final product but maintain the process and defined objectives. To encourage visual literacy students might be asked to post a visual to accompany a textbook reading and explain their choice. Students also produced dvd’s, cd’s of music to accompany a short story, and traditional “papers.” We had the online software “waypoint” to assess the projects with shared grading elements such as “document design” and “research.” (www.subjectivemetrics.com) The team had used waypoint for grading group design projects for three years in the engineering program. Having shared the development of the rubrics and finesse in applying them consistently, the team confidently adapted the rubrics to a new curriculum. (See Appendix B for how waypoint charted specific elements over the length of the group projects.) We had clearly communicated to one another a shared standard through weekly meetings on pedagogical issues. An analysis of our grading patterns demonstrated a consistency among team members in applying that standard. We might have disagreed about the appropriateness of multi-modalities to fulfill communication tasks, but we clearly agreed on a set of rubrics for judging quality.

The students received project guidelines that listed specific tasks that included the number of research citations, required reading references, and other details to meet the course objectives. Many of the ideas for projects in English Alive came from our experience teaching the first year engineering students. One project cited by Boeing in granting the Educator of the Year award had been the poetry project connected to an engineering fact sheet on how an artifact worked. Since the director of the program strongly supported poetry, students had recited the poems they wrote in their engineering class. Imagine the delight of Engineers and English teachers alike when we learned that Boeing had a “corporate poet” who conducts workshops to encourage creativity. Then imagine how astonished the students were to learn that their “How It Works” poem could be an asset if applying for a job as an aeronautical engineer.

Another project which had been instrumental in meeting ABET criteria required attendance at a professional play. The project had been designed to

show engineering students the many ways their profession is involved in the arts, before asking them to critique a play. The experience was instrumental in helping students, some of whom had never attended a professional production, appreciate theater. It is worth citing here the particular criteria that the Humanities component met in the interdisciplinary curriculum with which we had been involved for eighteen years:

- (f) an understanding of professional and ethical responsibility
- (g) an ability to communicate effectively
- (h) the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context
- (i) a recognition of the need for, and an ability to engage in life-long learning
- (j) a knowledge of contemporary issues (ABET criteria)

The ABET criteria are worth espousing in any curriculum and we had been imbued with their worth. Lifelong learning has become even more a necessity whether we see Thomas Friedman's "flat world" or Richard Florida's "peaks and valleys" of an international creative class. The need to understand audiences now requires far more cultural awareness than even a decade ago.

The research experience we had developed with the engineering librarian was another unit we adapted for English Alive because of the students' and librarians' positive responses. Halfway through the year, we could see from the waypoint data that students did not fully appreciate the necessity for scholarly sources in writing their design proposals. As we developed the hybrid class, we asked the librarians to develop an online component that was specific to the profession. In doing so, they created an online exercise, a tutorial that could be accessed at any hour, a quiz and an online help line. The librarians became participants in our online groups and met face to face with groups at their request. As their findings show, "students are more likely to learn new skills and concepts when they perceive them to be relevant to their lives or studies. By combining varied instruction techniques aimed at different learning styles, with a strong active learning component delivered at the student's point of need –when they have a concrete perceived information need – information literacy instruction can be improved so that students retain more and develop lifelong learning skills.(J. C. Roberts, J. Bhatt)"

Many voiced a willingness to express themselves in writing while avoiding the classroom discussion dominated by only a few students. Since

the work was online, everyone had to contribute and their effort was easily tracked by the course software.

Before the Class?

John Seely Brown, in a 1999 presentation to the American Association for Higher Education entitled “Learning, Working and Playing in the Digital Age” presents the community as the expert system. He recognizes that the students we are meeting today define their lives with technology in every realm (J. S. Brown). English Alive builds on that to make the community integral to the skills of interpretation and communication that our students must develop as professionals. For college teachers the challenge is to inspire this generation while teaching essential rhetorical skills and conveying the importance of literary touchstones. In contrast to the digital innovators, our teachers come from a generation that learned face to face and find the classroom skills they have acquired are simply not amenable to the online environment.

Reflecting on my decision to dramatically change the way we were teaching, I should note that the members of my team had been together for several years, some of them having worked with me for eighteen years on an interdisciplinary engineering program, with the average team member having worked with me for seven to eight years. We had built a community of trust over time and we had learned how to learn from each other. We shared tips on teaching strategies, on assignments, on deterring and detecting instances of plagiarism.

From our time together, we had learned that our failings as well as our strengths were valuable to our own learning community. I began the introduction of new members by asking two questions. What strengths do you contribute to the team? What weaknesses do you have that you want the team to buttress? We expected assessment from external reviewers and recognized that formative and summative evaluations required adjustments in our program. We had been instrumental in an interdisciplinary Engineering program at Drexel funded by the National Science Foundation, and we were accustomed to outside evaluation because 500 to 700 students reported on our program. As an integral component of the NSF funded project, “An Enhanced Experience for Engineering Students (1998-2005,” I had led a team that had incorporated technical communications in the required English component for freshmen. Additionally I had invited Engineering and Science faculty to suggest literature they valued and then had them visit the English lecture to participate in the discussions.

Memorable moments included students asking their Engineering faculty if “they REALLY liked” Shakespeare and the head of Electrical Engineering explaining to them that engineering leaders were more likely to be at a production of a Shakespearean play making contacts for venture capital than computing another flow chart. Our efforts to include authentic assignments such as proposals for the engineering design projects, poems about an artifact described in the Engineering assignment “How it works” and enticing non-fiction such as Henry Petroski’s *To Engineer is Human* generated an enthusiastic response from students and external evaluators. ABET recognized the program with its inaugural award for innovative curricula, Boeing recognized one of two co-creators, Robert Quinn with its Educator of the Year award. The other co-creator Eli Fromm received the inaugural Bernard M. Gordon prize for Innovation in Technology Education from the National Academy of Engineering.

Helpful Resources

Many researchers are looking at key questions for developing blended and online courses. Helpful guidance can be found in “Developing Criteria for an On-Line Learning Environment: From the Student and Faculty Perspectives.” The researchers found high correlation between student and faculty criteria; both groups gave top ranking to three factors: “the presence of a community of learners, accessibility of instructor, and clear, timely feedback (M.S. Cohen, T.J. Ellis).” A collection of essays, *Assessing online learning* highlights the different requirements for evaluating such courses rather than traditional models (P. Comeaux). In *Shift to the Future*, “The Learning by Design” principles are detailed as “tools and resources for teachers’ who recognize learning as both content and mode of delivery (N.Yelland). It is critical that changes in faculty attitudes be included in the data as much as that of students. Knowledge is not static for either group, nor should it be. As Carol Dweck recognizes in *Mindset: The New Psychology of Success*, motivation may be more of a deciding factor than IQ in determining success in life (Dweck).

Conclusion

Practical suggestions for adopting a new course design for millennial students are 1) Research the field and look for interdisciplinary corollaries. 2) Ask for help from Information Technology experts. 3) Build a learning community. 4) Involve the students 5) Align the learning outcomes with the grading rubrics. 6) Develop an evaluation plan. 7) Write a comprehensive

proposal to administrators. 8) Assure continuous quality improvement by disseminating.

Paying attention to our students requires that we pay attention to their world and to our own learning. The faculty who piloted the program have continued to increase their knowledge and use of electronic courseware. English Alive: A Hybrid Learning Community promotes an atmosphere for teachers and students to exchange ideas and build understanding by communicating, in the classroom, online and in a community - physical and electronic, like the community in which we already live as individuals Before the class and After the class.

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