

# **Preliminary Report from the Task Force on Curricular Innovation and Technology**

**May 7, 2014**

Lafayette is currently in a period of administrative transition. Selections for the new position of Dean of the Faculty, Dean of Curriculum and Resources, and Dean of Advising and Co-Curricular Programs were announced less than two weeks ago and the search for the Provost is ongoing. The Task Force recognizes that these administrators will play integral roles in the stewardship of Lafayette's educational mission moving forward. They will undoubtedly be tasked with the review of the recommendations put forward in the pages that follow and may seek further information or may wish to engage in further study of the matters we present hereafter. As such, the members of the Task Force collectively view this report as a working document that remains subject to revision. If warranted, we look forward to interacting with the President, the Provost and the new Deans in continuing with the important exploration of teaching and learning at the College.

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David Brandes, Information Technology and Library Advisory Committee  
Alan Childs, Director of CITLS  
Pat Donahue, Teaching and Learning Committee  
Michelle Geoffrion-Vinci, Faculty Academic Policy Committee  
Terese Heidenwolf, at large  
Chawne Kimber, Curriculum and Educational Policy Committee  
John Kincaid, at large  
Lawrence Malinconico (chair), at large  
John Meier, Associate Provost for Faculty Development and Research

Kristen Sanford Bernhardt, Faculty Academic Policy Committee

## I. INTRODUCTION

*“Thinking is fun...I just wish that I had to do it more often rather than regurgitate information to show proficiency in a subject” (Abigail Williams 2015<sup>1</sup>).*

But, how do we create a culture of innovation at our institutions? One key way, Apple suggests, is ‘to abandon efficiency as a primary working method and instead embrace participation, collaboration, networking, and experimentation. This does not mean that focus, process and discipline are not important; just that innovation and creativity require freedom, disagreement, and perhaps even a little chaos-especially at the beginning.’” (Oliver Dreon, “Fostering a Culture of Innovation”<sup>2,3</sup>).

There are abundant reasons for supporting innovative teaching at Lafayette College. We know, for instance, that students benefit greatly from a learning environment that stresses interpretation and application rather than passive reception. Our challenge is to encourage innovation in an academic context in which change often occurs at a glacial pace.

Researchers generally agree that learning is inherently social: it occurs in a student’s interaction with teachers, peers, family, experts, and others.<sup>4</sup> At Lafayette College, the scope, variety, and quality of learning experiences deserve considerable praise. The issue is one of sustaining these learning experience and, more importantly, supporting the development of diverse learning communities within different disciplinary communities. In the following report we offer a detailed list of recommendations.

In this section of the report, we describe the membership and charge of the Task Force, and the efforts undertaken to collect information about relevant concerns during the academic year 2013-14.

### *A. Task Force Members*

#### Standing Committee Representation:

- David Brandes, Information Technology and Library Advisory Committee
- Alan Childs, Director of CITLS
- Patricia Donahue, Teaching and Learning Committee
- Michelle Geoffrion-Vinci, Faculty Academic Policy Committee
- John Meier, Associate Provost for Faculty Development and Research
- Chawne Kimber, Curriculum and Educational Policy Committee
- Kristen Sanford Bernhardt, Faculty Academic Policy Committee
- Jason Alley, Director of Instructional Technology

#### At-large Representation:

- Terese Heidenwolf
- John Kincaid
- Lawrence Malinconico (Task Force Chair)

## *B. Charge*

In the Fall, 2013 President Byerly formed the Task Force on Curricular Innovation and Technology and gave it the following charge:

...look[ing] at existing and potential structures for promoting innovative thinking among faculty with regard to emerging pedagogies and technological opportunities. Recognizing that many such conversations have taken place through CITLS and elsewhere, the CI/T task force will provide additional venues for faculty conversation on topics ranging from online learning to interdisciplinary and cross-disciplinary engagement, social justice education and community-based learning.

In addition to identifying promising pedagogical approaches and areas for development, I invite you to offer suggestions for ways in which our administrative structures (for example, our review processes; our use of interim) can best promote ongoing faculty-led innovation.

During the 2013-14 academic year, the Task Force met seven times in Fall 2013 and fifteen times in the Spring 2014. Additionally, the Task Force held six open meetings for faculty and one meeting with students.

## *C. Task Force Actions*

The Task Force began its project by gathering information from various college constituencies, particularly in regard to the following issues:

- Our current pedagogical strengths.
- Challenges of executing best practices in teaching and curricular innovation.
- Strategies for confronting these challenges and for promoting and formalizing innovative pedagogies.

To acquire information about these issues and to provide faculty members with opportunities for voicing their concerns, several Open Forums were scheduled (Task force members chaired). A total of fifty faculty members participated. Dates and groupings are as follows:

- Social Sciences (February 10, 2014)
- Engineering (February 11, 2014)
- Natural Sciences (February 12, 2014)
- English and FAMS/Art/Theater (February 18, 2014)
- Humanities (February 20, 2014)
- “Catchup” (February 21, 2014)

A meeting with a selected group of students (names provided by Pam Brewer and the Marquis Scholar’s advisors) was held on March 25, 2014.

All these meetings provided the Task Force with important information. Major issues are listed below, while others are discussed later in the report. The unedited notes from open meetings (both faculty and students, with names removed) are also included (Appendix B) to ensure that our presentation of information is as complete as possible.

#### *D. Summary of Meetings*

While discussions reflect a wide range of ideas and opinions<sup>5</sup>, several themes did emerge:

- There is wide dissatisfaction with the present configuration of campus space, with many faculty arguing that these configurations impede rather than foster efforts at interactive pedagogy (some faculty felt that their efforts to provide feedback about recent renovations had been ignored; others expressed concern that the people who use classroom spaces—faculty and students—are not sufficiently consulted about what is or is not desirable).
- Faculty overwhelmingly agreed that the time they spend developing and implementing new or innovative pedagogies is not adequately recognized or compensated.
- The issue of class size was consistently raised as another impediment to innovation. Efforts to address this issue (for example, through creative scheduling where large lectures are paired with small group tutorials) have been resisted, according to some faculty members, especially at the departmental level.
- There is considerable interest in team teaching, but also a concern that course loads might be difficult to determine.
- There is a widely held perception that despite language to the contrary, teaching is a less valued and less recognized than is scholarship (for example, scholarship on teaching is often classified as “teaching” not “scholarship.” Time spent with students for advising, independent studies, Excel research, and thesis guidance is not adequately acknowledged as “teaching time” and rewarded accordingly).
- It is widely believed that while innovation doesn’t necessarily require technology, technology can certainly facilitate innovation.
- Many faculty expressed concern that innovation might be promoted merely for its own sake and that more traditional (and successful) forms of pedagogy or instructional structures (courses and programs) might be undervalued.
- Humanities faculty, in particular, expressed a desire for more training and support in teaching technologies (possibly through the availability of student “tech” assistants).

- Natural Science faculty (and, to a lesser degree, Engineering Faculty) expressed a desire for more frequent instrument replacement.
- Interest was expressed in the possibility of intensive summer short courses in technology for faculty.

Additional sections in the report include a brief discussion of current pedagogical innovations at Lafayette College (Appendix A provides a more thorough, although not exhaustive, list: “Present Innovations and Sponsors”); a brief discussion of the goals and aspirations that framed our recommendations; a consideration of student issues, focusing on preparation and access; and a report summary. Three additional appendices are attached: Appendix B suggests consideration for an enhanced role for CITLs; Appendix C provides “Notes From Open Meetings With Faculty”; Appendix D provides “Notes From Meeting With Students” and Appendix E contains endnotes referenced in the text.

## II. Present Snapshot: Pedagogical Innovation at Lafayette College

Throughout our conversations with each other, with our colleagues, and with our students, it has become amply clear that successful pedagogical innovation of various kinds is occurring at Lafayette College. While faculty may not necessarily believe that these innovations are sufficiently recognized or rewarded, there is now doubt that innovation is wide-spread, thoughtfully conceived, thoughtfully executed

Among these innovations are:

- Some professors have employed team-based, case-based, and cross-discipline experiential learning practices with their classes. These pedagogies--requiring little to no technology to achieve their aims--require a change in the way students and faculty engage each other. The innovation of these pedagogies enables students to actively participate with the content for which they are learning.
- Another innovative pedagogy, which relies immensely on technology, is blended learning. This practice can provide content to students both through traditional lecture-style practices while also relying on delivering material to students outside of the classroom. Students may engage with online quizzes to assess readings done outside of class while also participating in discussion forums with other students about assigned readings or concepts discussed in class.
- Another active pedagogical tool, service learning, provides students the opportunity to engage in their learning by engaging the world around them. The College supports and promotes this kind of teaching, learning, and community engagement through long-standing constructs like Tech Clinic , Community-Based Learning and Research, and the Landis Center.

We acknowledge that this list represents only a small selection of the innovative work currently being undertaken by Lafayette College. In Appendix A can be found a more complete list; nonetheless, this list is not itself exhaustive. We recognize that much innovation remains invisible. We also recognize that while much innovation is sponsored by office, programs and centers such as the Center for the Integration of Scholarship and Teaching (CITLS), The College Writing Program (CWP), Informational Technology Services, and Skillman Library, there is also a considerable amount of innovation that occurs within specific course, departments and other programs that has not yet been made visible to the community at large.

Again, it is important to acknowledge that while a significant number of faculty have been active in exploring new, even cutting edge pedagogical approaches, many include technological innovations, but others revision a better application of long accepted practices such as team-based teaching or group work in the classroom.

### III. Goals and Aspirations

Before offering our recommendations, we want to state the goals and aspirations that have helped to shape them.

In general, we believe that Lafayette College should:

- Support educational innovation in the service of student learning.
- Define educational innovation broadly, to include both technological and non-technological practices.
- Recognize, reward, and support in tangible ways the efforts and achievements of those pursuing educational innovation.

With these goals, we want to focus on three aspirations: the “maximization” of student learning, a variegated understanding of innovation, a shift in campus perception concerning “value.”

First, whatever the nature of pedagogical change, the focus should be student learning—and what we are calling its “maximization.” We interpret this aspiration as follows:

- The achievement of “maximized learning” will require the integration of efforts within and among departments and programs, will need to occur within the context of thoughtful and appropriate assessment, and will benefit from the support of programs and centers, such as CITLS, designed to foster both student learning and the ability of faculty to reflect in meaningful ways upon their pedagogical practices.
- The achievement of “maximized learning” will require recognition and reward for scholarly projects that are explicitly “pedagogical” in the best sense (held to high standards of knowledge-building, citation, and peer review, such as that promoted within the context of “The Scholarship of Teaching and Learning” or “SOTL”).
- The achievement of “maximized learning” will require attention to the formative dimensions of teaching evaluation, along with more specific procedures for departmental peer review.
- The achievement of “maximized learning” will require the acquisition of more knowledge about our students and how they learn. It will also require the acquisition of more knowledge about diverse student populations, their level of preparation and their specific academic needs.

In addition to the “maximization of student learning,” a second aspiration concerns the use of the term “innovation” and how it should be understood. While “innovation” is commonly attached to the word “technology,” we believe it important to promote and support a rich



range of pedagogical innovation (and/or revision). Technological innovation continues to promise the ability to make practical learning strategies that previously would not have previously been feasible. There is a need on campus not only to support efforts already being undertaken (clicker classrooms, flipped classrooms, blended classrooms), but also those that are emergent. There are forms of on-line instruction that offer great potential to improve student learning and reinforce the value of a small liberal arts college. It is critically important that faculty who want to explore these possibilities receive not only technological support but also institutional recognition for their work.

The third aspiration requires a shift in the perception of values within the larger institutional culture. Once again, the *perception* is that, despite what we say about the value accorded to teaching, it is research/scholarship and not teaching that is most awarded—both in terms of visibility and salary.

While changing this perception will take time, such change is critical if educational innovation is to be actively pursued. In the sections that follow, numerous suggestions are offered, ranging from “pedagogy fellows” to periodic “evaluation amnesty” (of the form suggested by President Byerly in her piece in *Inside Higher Ed*<sup>6</sup>. Without adequate reward and recognition, the goal of “innovation” will never be fully achieved.

## IV. Recommendations

Documented below are our recommendations. Please note that these are suggestions and not motions. Further discussion (and any and plans for implementation) will need to occur within the current faculty committee. Structure. Also note that not every Task Force member endorses each change with equal enthusiasm. Nonetheless, general consensus was reached.

Also, while it is certainly the case that technology is becoming an increasing part of our student's daily lives and that these capabilities and technological literacy will certainly be part of their professional lives as well, the Task Force is NOT suggesting that the use of technology or innovative pedagogies be required. Simply put, we want to be in a position to support, encourage and provide resources for faculty who want to examine emerging pedagogies. In fact, later in the document is provided an explicit statement about our concerns regarding the blind acceptance of the assumptions that the use technology leads to better teaching.

### *A. Summer Workshops*

- Pedagogy/Technology Boot Camp
- Cross-disciplinary: Engineering in a Liberal Arts Environment

One possibility for both encouraging and supporting our faculty in the application of innovative pedagogies and technologies might be summer workshops. One model would be to bring together our faculty from across disciplines to share ideas on pedagogy as enacted within different pedagogical contexts.

- First phase might involve only our own faculty.
  - Foundation support might be sought initially.
  - Wide disciplinary representation would need to be ensured. This would have the advantage of encouraging interaction between science/engineering and the humanities/social science faculty.
  - Could also provide opportunities for course development that would enhance engineering/liberal arts interaction.
  - If successful, these workshops might be advertised to faculty at other institutions, perhaps generating a revenue stream.
- Second phase might open up the workshops to the LVAIC schools, both as faculty leaders and participants.
- The third phase would be open to faculty across the country, again as both leaders and tuition-paying participants.
  - Secondary teachers might also be a possible target since they may need continuing education credit and also routinely use methods that might be adoptable.

- Student involvement might be desirable (other possibilities for including students in technological innovation are discussed later), perhaps as a shorter version of the John Hopkins program?

### *B. Imaginative Use of the Academic Calendar*

While Lafayette's January term provides excellent experiences for both faculty and students, participation is minimal for several reasons, including cost. Furthermore, while many faculty make use of Interim for scholarship and other professional opportunities, this is often wasted time for students.

The Task Force recommends that the College move to a 4-4-1 course requirement. This recommendation would require that the "1" be of sufficient interest and variety to attract tuition paying students from other institutions.

- The "1" would be required only once during a student's four years and would amortized over four years of tuition payments. Off campus courses would require a supplemental tuition to cover extra costs. Students could pay tuition for a second course, if space is available.
- Faculty would be expected to participate minimally once every four years. Compensation might consist of in-load or stipend consideration. Departments could teach courses for program credit, when appropriate (adjustments would need to be made in schedule, etc. An in-load model would allow faculty either to reduce their normal semester load or "bank" courses.
- Benefits of a 4-4-1 model:
  - The "1" course might allow for more or many co-curricular opportunities. Even if not an "off-campus" course, trips to NYC or Philadelphia or Washington DC would be easier to arrange.
  - Extended meeting times would create new pedagogical possibilities.
  - Student/athletes would have more access to off-campus courses.
  - Interdisciplinary courses would be encouraged, especially in terms of engineering and the liberal arts (which would emphasize our special character as an institution).
  - CBLR opportunities within course work could be encouraged.
  - Tuition-paying students from outside Lafayette might find the timing attractive.
  - Faculty from elsewhere (or adjuncts) might be able to supplement our curriculum with new courses.
  - Reducing the January break would bring us into alignment with other LVAIC schools as well as most colleges across the country.

There are many questions that would need to be addressed for such a dramatic change to occur. It is also of critical importance that such a change—if it is indeed agreed upon—not be attempted half-heartedly. If the current calendar should stay the same there are several other considerations that the Task Force has discussed and put forward for consideration.

### *C. Evaluation Amnesty*

In order to encourage faculty to try innovative pedagogies, the Task Force recommends that the appropriate faculty committees consider developing a protocol whereby faculty who elect to experiment with new pedagogies can opt for “evaluation amnesty.” While it is indeed the case that faculty members can send a letter to the Provost requesting that a course not be evaluated, there is not a consistent policy for such “exemptions.” It is also likely that such an option is exercised more often by tenure faculty rather than pre-tenured.

Reasons for this recommendation are all follows:

- There are risks associated with pedagogical innovation that should be minimized. Teachers need space and opportunity to experiment.
- Students don’t always respond well to innovations or changes in classroom environment.

Any faculty member desiring to exercise such amnesty would describe the innovation in the letter provided the Provost. The frequency with which such amnesty could be requested would need to be decided. Faculty members would also be encouraged to attempt some kind of evaluation of the innovation, even in the absence of formal college evaluation. It would be the faculty member’s decision how or whether to distribute such evaluation.

### *D. Revisions to our Faculty Standards*

Section 4.2.1 of the Faculty Handbook offers a list of nine attributes of “quality teaching.” This list might be amended to include explicit mention of risk-taking and innovative pedagogy.

### *E. Recognition for the Successful Pursuit of Educational Innovation*

While there are a number of faculty awards directed at superior teaching, there is a general feeling that more could be done to recognize individuals or collaborations that successfully integrated innovative pedagogies or emerging technologies into their courses.

Some of the suggestions that would be relatively easy to implement could include:

- Create a “pedagogy showcase” website
- Provide for teaching prizes that specifically acknowledge innovation
- Establish a “pedagogy fellows” program

- Similar to the Jones faculty lecture, have teaching prize winners present their work in different venues to which the whole of the campus community is invited
- Have a panel on teaching at Trustee meeting

#### *F. Support For Risk-Taking*

Experimenting with new teaching methods, techniques, and technologies can be messy, as good experiments often are. Some faculty members hesitate to engage in such experimentation out of concern for negative impact on their teaching evaluations. Others are constrained by programmatic responsibilities. Others still lack the time and resources to explore new approaches and subsequently prepare a course undergirded by them. Additional and more clearly defined recognition for such efforts as part of professional reviews would help to foster taking positive innovative changes in the classroom. A variety of mechanisms should be explored, including:

- course releases and/or stipends for new course development or course overhaul,
- more opportunity to vary teaching loads (e.g., 4 courses in fall and 1 in spring),
- incentives for cross-disciplinary team-teaching – team-teaching requires substantial effort by each participant. Awarding a full teaching load to both faculty would serve as a strong incentive for faculty to participate
- more flexibility in scheduling lectures and smaller discussion sections in such a way as to foster more faculty-student interaction.
- more staff support for study abroad and other endeavors.
- support for Pedagogical Travel that would parallel Scholarship Support.

#### *G. Compensation for Time Spent on Educational Innovation*

Thoughtful, scholarly innovation requires time for research, development, implementation, and assessment. Faculty members across campus have raised concerns about the time required to do this well. In addition to possibly revising (or developing new) learning objectives and activities, a faculty member may need to learn a new pedagogical technique, develop expertise with a particular computing technology, or be trained to work with new instrumentation. Given the existing demands on faculty time and energy, and it is difficult to imagine that more widespread scholarly educational innovation will occur without mechanisms that either shift existing workloads to accommodate the additional time required or provide additional compensation for efforts beyond the normally expected teaching, scholarship, and service activities, particularly during the academic year. Such mechanisms could include, for example,

- a fellowship program for educational innovation through which a faculty member could apply for a stipend, a course release, and/or staff support; and

- a series of hands-on workshops during interim or summer sessions that would support innovative activities.

#### *H. Flexibility in Classroom and Class-Size: One Size Does Not Fit All*

More classroom flexibility and class-size flexibility would be highly conducive to pedagogical innovation. Absent such flexibility, it is difficult to experiment with many types of teaching innovation. Specific suggestions:

- There is a need for moveable classroom furniture.
- New classrooms should not have odd shapes, such as a long and narrow layout, that create teaching difficulties.
- Furniture for students also should be big and comfortable enough for students to concentrate more effectively on learning and interaction.
- Classes of twenty-five or more students place limits on innovation possibilities. In some cases, moreover, large numbers of students are squeezed into classrooms that are too small for comfort and too small to re-configure furniture.
- Achieving classroom space flexibility will require better cooperation and communication between administrative planners and faculty members.
- Flexible class scheduling time should be considered. Some departments would like courses that meet in two-hour blocks a week with an additional scheduled hours. Others would like a large introductory class combined with small discussion sections.
- Class-size enrollment flexibility also might be enhanced by introducing one-half courses, partial credit options, and hybrid arrangements that allow departments to manage class sizes in relation to their pedagogical goals and styles. Some colleges and universities do count fractional credits.

## V. Ensuring Access: Student Preparation

The Task Force recognizes that if teaching is to be effective, we need to make sure that students are positioned to learn to the best of their abilities. To that end we make the following recommendations:

- That the College provide additional resources for students to gain technological skills and to shore up some academic capabilities where necessary.
- That the College continue to support special programs for broadening participation in STEM while also seeking opportunities to expand the impact to other majors.
- That the College explore ways to ensure that participation in high-level academic opportunities such as EXCEL research and honors projects reflects the demographics of the student body as a whole.
- That the Provost study our traditional academic support structures and ensure that we are following best practices.

### *A. Issues of Skill- and competency-building:*

- The need to build high-level technological skills and technological literacy were often mentioned as goals by Trustees and faculty. ITS currently provides some software training both through in-person workshops and online modules like Lynda. While we should raise awareness of these resources, there is also some value to building a repository of online training resources for students using similar platforms in multiple courses. For example, some faculty who require podcasting in their courses could have students go to a centralized session (possibly online) where they would learn how to use the equipment and editing/production software. This model could provide faculty with an efficient way to ensure that students have the necessary technological skills to succeed without taking up regular class time.
- Technological and scientific literacy are as important to foster as the skills mentioned above. General education courses in Engineering and fuller development of the STSC courses in the new Common Course of Study have this aim, while opportunities for interdisciplinary education provide also many platforms for this.
- Instructional technology should consider building a cadre of WA-like Student Technology Mentors to assist faculty in teaching technology particular to participating courses.
- A segment of our student population does arrive with academic skills that need remediation. For these students (and others who want to improve their chances for success) we should pursue partnerships with local community colleges and/or provide access to approved online coursework that may or may not earn Lafayette course credit.

- The college should ensure that adequate staffing, resources, and training are available to provide support for students with disabilities and ESL students.

*B. Ensuring access:*

- The college should ensure that as many students as possible have access to as many majors as possible. This requires early academic interventions and careful advising to build ramps into majors and keep students on-track to graduate on time.
- The college should build upon the successes of the Summer Program to Advance Leadership (SPAL) and Science Horizons and look into ways to support and sustain more programs aimed at preparing first-year students to succeed and excel in a variety of majors.
- The college should do more to ensure that the demographics of student participants in academic opportunities such as EXCEL research and honors projects reflect the demographics of the student body as a whole.
- To this end, the Faculty should consider formalizing different approaches to academic mentorship beyond academic advising that erase perceived biases (of students and faculty) and lead to diverse groups of students, particularly first generation and low-income students, achieving high levels of academic success. For example, many of our faculty mentor students well in research, others mentor students in the social transition to college and to the working world. With careful training in formal mentorship, our faculty could feel this activity is more valued by the institution and likely feel they become more effective mentors.



## VI. Statement on Aspects of Technology in the Lafayette Curriculum

In the task force's many open meetings we frequently heard two concerns related to technology and teaching. One was a laudable desire to have technology not drive curricular innovation, but rather facilitate it. The other was deep skepticism regarding fully online classes such as Massively Open Online Courses (MOOCs) and how they fit with the mission, values, and strengths of a small residential liberal arts college. This section considers these concerns.

MOOCs generated a great deal of discussion in 2012 and 2013, and national conversations have quickly moved from unrealistic hype such as the New York Times declaration that 2012 was "the year of the MOOC" to the current "trough of disillusionment."

- MOOCs are just one example of the ways in which education is being transformed by online resources.
- There are now a number of Open Educational Resources (OERs) that college students and faculty members use. These include tools whose development was spurred by MOOCs. Examples:
  - Automated assessment and adaptive quizzing
  - MIT's Open CourseWare
  - The Carnegie Mellon Open Learning Initiative,
  - Video resources such as TED Talks and Khan Academy videos.

The use of OERs is not an isolated phenomenon. These explorations are occurring within Lafayette's sector of higher education. As examples,

- faculty members from St. Olaf and Macalaster Colleges have developed a "high tech and high touch" online calculus course,
- Wesleyan University has created an array of online courses with Coursera, and
- Professors at Harvey Mudd have developed MOOCs and received a nearly \$200,000 grant from the National Science Foundation to study the impact of flipped pedagogies.

Over two-thirds of colleges and universities report that online learning is a critical part of their long term planning and over thirty percent of college and university students have taken at least one online course<sup>7</sup>. Exposure to online resources is at least as robust in the K-12 curricula. As examples:

- In 2012 twenty-seven states had fulltime online schools and
- Michigan, Alabama and Florida required at least one online course for students to graduate from high school<sup>8</sup>.

While not all the evidence is in, there is a growing literature demonstrating that flipped and hybrid approaches are at least as effective as traditional strategies.<sup>9</sup>

Given this environment, Lafayette College should take seriously William Bowen's comments about the potential for online tools to transform higher education:

The principal barriers are the lack of hard evidence about both learning outcomes and potential cost savings; the lack of shared but customizable teaching and learning platforms (or tool kits); and the need for both new mind-sets and fresh thinking about models of decision making.<sup>10</sup>

To this end it is appropriate for Lafayette to support thoughtful faculty engagement and experimentation with emerging technological supports for innovative teaching, including hybrid models of online teaching tools with more conventional classroom instruction. However, it must be recognized that movement of course content to an online delivery mode to free up class time for other activities is likely to require a substantial investment of time on the part of the faculty member and may not be in the mission of a small liberal arts residential college.

There was general support among the task force for finding ways for students and faculty to take better advantage our membership in LVAIC through the use of technology to connect campuses (e.g. wider availability of video-conferencing).

## **VII. Closing Observations**

Lafayette College may be uniquely positioned to take a leadership role in how innovative pedagogies and technology can enhance student learning. The combination of engineering in the liberal arts environment coupled with an excellent faculty, many of whom are on the forefront of pedagogical development, provides a strong foundation for the future. The challenge will be to find ways to systematize the support for curricular evolution.

The issue is not one of an unwilling faculty but rather of finding ways to acknowledge the value of the activity and support the efforts of a faculty willing to adapt to changing educational environments.

## Appendix A: Present Innovations and Sponsors

This section of our report attempts to provide an overview of the pedagogical activities of faculty, those that have been catalogued primarily through the activities of the Center for the Integration of Teaching, Learning, and Scholarship (CITLS), but also through efforts of The College Writing Program,

### *A. Innovative Assignments and Activities*

Faculty at Lafayette continually consult with the Center and ITS's Instructional Technology group to find creative ways in which to engage students. Because the list is somewhat exhaustive, we will refrain from providing extensive descriptions of each and as mentioned in this introduction it is hard to know the extent to which these strategies are used. These assignments and activities allow students to engage with and even showcase their work to the faculty, their fellow students, and sometimes the greater Lafayette community. Most, if not all of these engagements would be possible if it weren't for myriad technologies already in place at the College.

- *Peer-review of writing*: Through the use of Google Drive, students are able to peer-edit their writing with one another providing embedded comments
- *Online journaling and digital writing as a new medium*: Tools like WordPress are allowing students the opportunity to share their writing beyond the traditional student-to-professor model finding audiences and critics within their classes as well as the Lafayette community and the world. Students are reflecting on their learning and about the learning they're putting into practice. In addition, because of the medium, students are communicating their observation and findings on topics using traditional text, images, embedded audio and video, and links to related materials changing both the ways in which students engage content as producers as well as consumers.
- *Digital storytelling*: students have created audio projects to and video projects with still images, videos, and annotated voiceovers about topics ranging from biographies to documenting biological behaviors. Students have also been involved with
- *Poster presentations*: Some departments have showcased students' in-class work and research through poster sessions, some of which are open to the Lafayette community to attend.
- *Web conferencing with guest lecturers*: Using tools like Google Hangouts or Skype, professors have invited guest speakers to discuss topics with their classes directly. Also, classes have joined larger web conferences to hear an author speak about the process of writing, the subject matter, and to answer questions asked by those attending the session.
- *Gaming simulation*: A professor created with a student programmer his own simulation tool for modeling different scenarios in the marketplace. This simulation is maintained by Information Technology Services and the professor is planning to partner with an Ivy League business school this year.
- *Analysis using student-created and extant datasets*:

- *Student performance review, feedback, and assessment:* Professors are using online tools like Moodle quizzes to more easily identify gaps in student learning rather than spending time grading paper-based quizzes. Some are encouraging students to Tweet during class as a means to receive student feedback on class material. And, the Department of Foreign Languages and Literature has adopted an online portfolio system providing students a reflective and archival record of communicative competence and cultural experience.

### *B. Sponsors of Pedagogical Development*

Several college offices have as a primary or secondary responsibility, the promotion of sound and innovative pedagogy in support of the primary mission of the College, that of providing excellent teaching. It should be noted that in addition to the obvious offices listed below, innovative pedagogy has probably been developed within individual academic departments as well as through individual and often private efforts at the initiative of individual faculty members. These departmental and individual efforts may not be sponsored by any campus office, and then might not have come to the attention of this committee. This might be seen as a shortcoming of this report in that departments and faculty have sometimes been comfortable working quietly within the sphere of their disciplinary teaching and not necessarily sharing the innovative and creative efforts with the broader community. Therefore it is the suspicion of this committee that what is known about individual innovations in pedagogy is less than what is actually being pursued, and the challenge will be to use the offices listed below to engender not only greater innovation, but the greater sharing of innovative applications of creative pedagogy.

### *C. Center for the Integration of Teaching, Learning, and Scholarship (CITLS)*

In the five years since its inception, the primary function of CITLS has been to promote and support sound approaches to classroom teaching including innovative and creative pedagogical techniques. The Center has pursued this responsibility by working with the other offices listed in this section, but also with individual faculty members to develop responsive programming. The focus has been on programming to introduce teaching faculty to well established and sound techniques (e.g. the proper use of PowerPoint, effective approaches to a good class discussion), but also to newer or “cutting edge” approaches (e.g. ePortfolios, flipping a class, Twitter).

The listing that follows is in no specific order but describes the kinds of activities that CITLS has produced. Some of these programs have been presented multiple times, others, such a workshops conducted by outside consultants, only once. The typical CITLS faculty panel program has averaged about 12 attendees over the five years, with some events drawing as many as 35 or more. Many of the programs have been co-produced with other offices, most notably ITS and Skillman Library, but also with the Mellon and Teagle Committees in support of their specific missions, and other campus programs such as Community-based Learning and Research (CBLR).

- Two separate one-week workshops on Problem-based Learning (PBL) delivered by staff from the University of Delaware.
- Over 40 instances of panel discussions delivered by Lafayette faculty, many co-sponsored on a wide variety of pedagogical issues and topics (distance learning, diversity, infusing the arts, improving lectures, improving discussion-based classes, impact of stereotype threat, Interteaching<sup>11</sup>, evidence-based learning, assessment techniques, etc).
- A three to five day (varied by year offered) new faculty orientation program in August followed by a year-long, weekly series of programs, co-sponsored with the Office of the Provost.
- Several mini-workshops on various presentation tools (PowerPoint, Prezi, Concept mapping)
- A two-day workshop on how to begin conducting scholarship in teaching and learning (SoTL) by expert consultant.
- Using student self-evaluations to improve classroom management
- Several sessions on how cognitive science research can inform classroom teaching and testing.
- Several mini-workshops on using student response systems (“clickers”, PollEverywhere).
- A two-day workshop on methods of introducing the concept of blended learning into a course delivered by an outside expert.
- Special lecture from national expert on technology and the future of education.
- Several programs each year with Skillman Library on informational literacy and using other library services and program.

### *The College Writing Program*

- Sponsors bi-weekly sessions for FYS faculty on the incorporation of innovative writing pedagogies into their courses.
- Sponsors workshops and individualized sessions for faculty on the use of peer review, rubric development, small group writing discussions, writing review software, and so on.
- Trains undergraduate Writing Associates in new response strategies for discussing writing with student authors.
- Provides a drop-in service that frequently has a digital writing emphasis.

### *Information Technology Services (ITS)*

- A number of workshops each year on using various pedagogical software and computer systems. These include using Moodle, survey and questionnaire production, just as examples. Also support for using computer-related hardware such as video and audio recording
- An endless variety of interactions with individual faculty to find solutions to pedagogical questions and issues to support classroom teaching.

- Support for a variety of databases that can support classroom teaching, such as lynda.com.
- Developing the Teaching with Technology Grants program to support faculty who would like to learn about and then implement a technological innovation into their courses.
- Developing the Tech Lounge, a place where students and faculty can drop in to have technology based questions answered.

### *Skillman Library*

- Developing the Informational Literacy Grant program to support faculty for incorporating IL into their classes.
- Extensive support for the First Year Seminar (FYS) and the former Values in Science and Technology (VaST) programs by providing library liaisons and instructional sessions for these courses.
- Developing the “Embedded Librarian” program to allow a librarian to serve as a literal co-instructor for courses with an intensive informational literacy component.
- Countless individual consultations with faculty on improving the integration of library resources and informational technology into courses.

### *Special Innovative Facilities and Technologies*

- The Collaborative Classroom, an integrated, networked, workstation classroom in Pardee 28.
- Kirby 10, a dedicated video conferencing room, is built around a Lifesize Express220 codec with dual HD displays. Lafayette can connect to other locations by way of Internet2 at speeds that permit full-HD video interaction. Conference participants can also display a computer or document camera to remote sites.
- Over 80 technology-enhanced classrooms with full audio and visual displays, networked with the Internet, several with multiple screen projection capacity.
- Cross-discipline collaborations, notably between Geology and Computer Science to a mobile application for using in geology fieldwork.
- The college is a full member of Internet2, with access to the entire Internet2 community of researchers, and a dedicated 100MBs data pipe with access up to 1GB.

## Appendix B: Consideration for an Enhanced Role for CITLS

Assuming the recommendations of this task force will be considered and some implemented, and assuming that CITLS is the logical office to organize, support and coordinate efforts in fostering creative and innovative approaches to teaching, then here are the central issues that we believe must be addressed if we will be increasing the Center's capacity to meet the demands of a significant increase in support for innovative and creative pedagogy.

At present, the current model for staffing CITLS is to have a faculty member on released time serve as director for a three-year term.

- During this term it is expected that the individual will be teaching one course a semester and maintaining some responsibilities in the home department such as attending department meetings, serving on departmental committees, advising and mentoring independent studies students.
- No doubt, these will vary depending on the needs of the "lending" department.

In the current staffing model for the Center, the second CITLS staff member has been an administrative assistant who is shared with at least two other departments:

- Provost's Office, and the Office of Post-graduate Fellowships/Health Professions, and occasionally works for the Dean of the College office
- At best, the assistant can dedicate no more than one third of their time to working with CITLS.

It would appear to the task force that at this anticipated staffing level, it would be difficult if not impossible for the Center to provide a significant increase in support, programming, and coordination of the suggested initiatives which this task force has recommended. Of course, one option would be to keep the staffing of the Center as it is, but limit, or at least prioritize the implementation of these recommendations over an extended period of time. That however seems to limit the capacity of the Center to provide sufficient support for the aggressive, creative and desirable innovations in pedagogy which the faculty are being asked to make, and would seem to limit the possibilities for innovation and creativity, at least in the short term.

There are several options for changing the model of staffing the director's position for the Center.

- One would be to hire an individual who would be a full time director of CITLS. This would be an administrator trained in the academic profession of faculty development. Of necessity, this would likely have to be a person from outside the College, but these individuals would be active in the world of professional development issues and research (see POD listserv), and could bring a breadth of knowledge and experience in implementing innovations in pedagogy, and be active in the national and international organizations which focus on faculty and pedagogical development. One negative would be that this individual would not be familiar with our college culture or know its faculty, at least initially. This is a model often found at larger colleges and universities, and would be a bit unusual at a small liberal arts college.



- A slightly different version of this option, one which would meet the concern about knowledge of the culture of our faculty would be to hire a member of the faculty to serve as a full time director without regular teaching duties, and with the expectation that the position would be for an extended period of time, a position on the same terms as any professional academic administrator. This would likely require identifying a current faculty member, one interested in faculty and pedagogical development, but willing to make a permanent career change into administration. We suspect that these candidates would be difficult to find, but not impossible.
- Assuming that we prefer to have a director with intimate knowledge of the college and its faculty, and assuming that this position would be temporary reallocation of a faculty member's duties, and that regular teaching as well as departmental activity would be expected, then an alternative suggestion would be to staff the Center with two co-directors, perhaps with staggered terms. Having two directors would allow not just for a doubling of the Center's programming efforts, but would allow the directors to spend more time with faculty and staff in developing responsive programming and more time attending national conferences where cutting edge pedagogical philosophies and approaches are discussed. We appreciate that this option would take what we assume would be two good teachers out of a full teaching load but then, to gain the significant improvement in pedagogical innovation and creative teaching, not to mention a much higher commitment to encouraging and supporting the scholarship of teaching and learning (SoTL), an increase in the staffing support for these new or greatly expanded efforts would seem to be necessary, even if at the cost of the temporary allocation of two well respected faculty members. It would be more typical at colleges with the resources that we have to staff an active and vital teaching center with more than one part-time director. For example, Bucknell University has two full time co-directors, both having come from the faculty, a full-time administrative assistant, and a rotating faculty fellow (more on this position follows).
- A variation of the "two-directors" model, would be to have a regular "Pedagogical Fellow" position in addition to a full time (or if necessary, director. This position would have a faculty member to serve for a shorter period of time, say one year, in a position that might be dedicated to a specific task (e.g. the development of an on-going workshop on how to conduct research on classroom pedagogy, or a series of discussions on incorporating certain technologies into the classroom), but could also be imagined as serving in a more general support role. This is imagined to be a competitive position and the fellow would be on a reduced teaching load, perhaps a 1-2, and might also be awarded a stipend for work over the summer. Faculty Fellows or Pedagogical Fellows are a common feature at many institutions that have an active teaching and learning office.

In addition to considering the director's position, the role of support staff for the Center must be expanded from the current shared model. If the Center is to achieve a high visibility on campus and significantly increase its programming and support role, then there will be more than enough work for a full-time position for an administrative

assistant. For example, the Center's office should be open and available during the entire workday, which it currently is not, and with increased programming activities, there will be a much greater need for scheduling and organizing the Center's activities. If the current model of a shared administrative assistant is to be kept, then the ability of the Center to be fully functional will necessarily be restricted.

While this section of our report has focused on the role and needs of CITLS, it must be noted that the involvement of other college offices is vital to any successful effort to increase innovation in teaching. The two most obvious, and the two that have worked most closely with the Center over the past five years have been:

- Informational Technology Services (ITS), and
- the College Library.

If we imagine significantly more activity on the part of the faculty to incorporate appropriate and effective technologies, as well as greater attention to the integration of informational literacy into our courses, then we suspect that these two components of our pedagogical mission will have to be augmented with both staff and financial resources. As noted elsewhere in this report, an increase in innovation and creativity seldom come without an investment in people and financial support, and to realize a significant increase in these activities will call for a greater investment in staff and finances.

In concluding this section of our report, several recent developments in the organization of the faculty governance structure need to be noted, the impact of which are hard to predict. According to the recent communication from the President concerning the reorganization of the academic division of the college, the Center will be reporting to the newly created office of Dean of the Faculty. This will be the third change in the reporting structure for the Center since its inception, changes that can result in an adjustment of responsibilities or a shift in focus.

- The task force hopes that the new dean will be fully supportive of the role of CITLS in faculty development and most importantly, to maintain a certain independence of mission for the Center.
- Specifically, the Center should not be seen as serving a direct role in the process of tenure and promotion for any faculty member, nor of the evaluative aspect of that process.
- The Center should be perceived by all faculty as in support of their teaching mission and not a check-off on the road to tenure or promotion. However, this does not preclude the investment in a rigorous program of support for the assessment of classroom pedagogy for the purpose of improving its effectiveness or as SoTL research.

Secondly, we notice that the Faculty Committee on Teaching and Learning has been at least partially re-purposed as the body responsible for the support and oversight of the Center. Again, the impact of this re-organization remains to be seen, but it may be that the members of this committee will assume some of the responsibility for initiating and even delivering programs to support desired pedagogical innovations. It may be that under this model, the Center becomes the executive for the interests of the committee, as it also the committee also seems to take on the role of advising and evaluating the effectiveness of the

Center's activities, insofar as committees of the Faculty are willing and able to take on these kinds of responsibilities. This maybe a way of producing more responsive programming while maintaining the current staffing level of the Center, but whether this is the most effective and efficient way of making a significant increase in the support for creative and innovative pedagogy will depend on how the committee comes to fully encounter it's stated mission.

## **Appendix C: Notes from Open Meetings with Faculty**

### **Social Sciences Faculty, February 10, 2014**

Task Force Members Present: David Brandes, John Kincaid, and Larry Malinconico

Number of Attendees = 6 from Anthropology and Sociology, Economics, Government and Law, and Skillman Library

Note-Taker: John Kincaid

The first comment, after David Brandes displayed informational slides about the task force and questions for the attendees, was an expression about the purpose of the task force. “Some people” think the task force is about MOOCs. Likewise, some people believe that President Byerly wants to “get rid of” the interim and also promote more summer teaching and enrollment. There is a belief that the task forces are actually cover for a covert agenda. The College just wants to throw money at something in order to gain greater visibility while not focusing enough on course-size reduction. There is a lot of tension over the budget and efficiency.

The more important question is how we can create a better structure to promote innovation. The College gives some support for innovation, such as stipends, but the College is very cost sensitive. For example, the College is very stingy about supporting interdisciplinary programs and non-conventional activities.

Another commenter said that we should look more carefully at programs the College already has that take students out of the classroom. For example, we have interim courses that take students abroad or at least away, as to Hawaii for geology. The College also has a semester-long study abroad program and six-week abroad programs. The College should seek to have every student, regardless of major, spend at least 3-4 weeks abroad with a faculty member. Both the social sciences and study abroad are in high demand from students.

Larry Malinconico then interjected that he favors innovative use of the calendar and is not averse to more interim and summer activity. He also raised the question of class size as something that should be considered by the task force. He further suggested a Jones faculty lecture for pedagogy.

Another commenter insisted that the task force consider the question of innovation for what—for what purpose and for whose sake. This person also asked: “What does the College want?” A problem is that innovative classroom activity often decreases student evaluation scores. How can we best evaluate innovations and evaluate innovators? The College needs more programs across disciplines, but the College needs to provide more support for people to engage in such programs.

Global education, for example, has a shrinking budget. The College should devote more of its budget to innovation than to new buildings.

A repeated concern was large classes. Having 25 or more students in a class limits what can be done innovatively and personally. In some cases, a large number of students are squeezed into a classroom that is too small for comfort.

There should be more freedom for departments to manage enrollment in their classes. For example, a department might choose to have a large introductory class with 200 students combined with small discussion sections. Thus far, the College has vetoed this idea. Partly, there is the question of whether a very large class should count as two classes for a faculty member. There also is a need for one-half courses, hybrid arrangements, and partial credit options so that departments can have more flexibility in managing class sizes and pedagogical development. There are other schools that count fractional credits. Most likely, though, such policies would require more financial resources.

There is, as well, the question of equity for faculty members with regard to numbers of students in classes. A better equity policy would allow for more innovations in class and course configurations.

Another commenter argued that the College does not reward individualized attention to students, such as independent study and thesis supervision. Hence, too few students are doing independent studies and theses. Independent study and thesis supervision should be built into the College's teaching system and rewarded adequately.

Another person urged the College to establish an award for innovative teaching. "Recognition is crucial for innovation."

Another attendee noted that faculty members need time to innovate. "The College needs to think more about course releases" for innovation development.

Another commenter said that public scholarship is not counted toward tenure and promotion. Also, if one publishes on pedagogy, the publication counts toward teaching, not research, for tenure and promotion.

Another asked: "What is the teaching-research connection, and what is the appropriate balance?" Some attendees believed that teaching should be given greater value in tenure-and-promotion decision-making.

Another commenter expressed a need for the College to strengthen the FYS program. "The FYS courses are very uneven," he said, "and they produce uneven results." There is a need to improve both the teaching and the requirements for FYS courses.

David Brandes asked attendees for their views on technology.

An immediate response from one attendee was: “MOOCs are totally irrelevant. We are not M.I.T.” Instead, the College needs to make hard curriculum decisions about things to cut rather than trying to rely on technology.

Overuse of technology might clash with the College’s need to increase diversity, said one attendee. Another noted that the costs are too high for a faculty member to prepare 14 weeks of online lectures. Furthermore, in some fields, lectures really need to be updated annually.

One attendee suggested that technology could be used to allow students to get a sense of what a course is like before they enroll in it. This could reduce the number of students who drop a course when they realize they will likely get a grade of C or less.

Several attendees noted that technology can be used to enhance a course, such as blogging. Another attendee noted that there is already a lot of electronic material and sources, such as YouTube, now freely available for students to use in conjunction with course work.

One attendee said that the College should not dilute its identity with overuse of technology.

Larry Malinconico closed the session, suggesting that faculty members and faculty-student interactions are the most important assets for the future of the College.

### **Engineering faculty, February 11, 2014**

Attendance: faculty from ME (1), ECE (1), CHE (2), CE (2), ES (2), Task Force (4) [KSB is counted thrice in there]

#### Brief notes on topics brought up:

##### *Curricular/Pedagogical*

- Interest in building and running a 3-week August course in sustainability
- Seeking efficiencies in teaching students basics of use of technology outside of class time. [Podcasts, for example, require training students in equipment, software and other resources. Doing so takes time away from content.]
- Perhaps we ought to a Communication requirement, rather than W, in the Common Course of Study? Or four Ws and a C? In a C course, other modes of communication would also be emphasized [digital writing, podcasts, audio, video, etc]
- Shift culture by educating more students and more non-engineering faculty about what engineering is. This could help recruit more students into integrative courses like Engineering America or the interim abroad course on engineering in Italy.

##### *Infrastructure*

- Need for unconstrained classroom arrangements [more spaces like Pardee 28, design studio space, moveable furniture]

##### *Administrative*

- There is a need for better dissemination of knowledge and publicity of ongoing projects and innovations on campus [Tech Lounge, for example]

- Departments should have better controls on class-size in computer-based courses [usually there is a TA and manageable enrollment, but sometimes neither]
- Should there be different ways of counting teaching loads? [In team-teaching, each faculty member brings a competency and contributes a percentage of a course. These contributions ought to amount to a full load, yet courses are staffed by multiple faculty.]
- Efforts are often not sustained. Mostly one-offs.
- There should be more faculty outside of engineering who do engineering.

### **Sciences faculty, February 12/2014**

In attendance: 3 chemistry faculty, 2 computer science, 1 biology, 5 task force members

- Request to make slides from introductory presentation available on web site.

#### Issue of funding, maintaining and support instrumentation

- Instrumentation that's a necessity for teaching in the sciences is difficult to manage at the level of an individual department budget—particularly the maintenance and replacement of instrumentation. Chemistry has been successful with grants, but can't count on that continuing. (And it's difficult to coordinate application for NSF grant with those in other departments, provost's office, etc.)
- In chemistry, instrumentation is crucial for teaching as well as research. Students should be working on state-of-the-art equipment.
- Ideal for chemistry department: instrumentation on a 7-10 year replacement cycle.
- Instrumentation is also an issue in interdisciplinary sciences—e.g. there are no lab facilities for environmental sciences.
- Institutional policies re: technical support staff for instrumentation are crippling the physical sciences. It's a waste of faculty time to have to monitor instrumentation.
- Need more support (i.e. people) to use what we have more effectively.

#### Lack of time and reward structure for innovation in teaching

- Teaching innovation is "icing on the cake" but doesn't get much reward: "How can I get a break from all the other pressures (esp. research) to learn what's out there and how to use it?"
- Takes time to learn what's available—even if you just want to send students to online education sites to have them learn basic concepts.
- Should be more opportunities to use instructional technologists and librarians.
- Students likely to respond negatively to teaching that is truly innovative. Makes it more risky.
- Won't build critical mass of innovators if those who are first out of the gate aren't getting support.
- CITLS could help innovators assess if innovations are working in the classroom. Could serve as outside observer who is not part of the evaluative structure.

#### Other issues

- Need more moveable/flexible furniture. Tables fixed into place are obstacles.

- 4-4 is an impediment. Can't offer 1 or 2 credit classes. Hard to get students to try something outside the well trod path because they're so careful with their 32 credits.
- If we value advising, we ought to reward it and encourage those who do it well to continue.
- Haven't been as good as we could be at marketing innovative teaching to students—e.g. lack of student knowledge about tech clinics.
- Need more summer research. Seems like administration does not encourage departments to try to establish more memorial/endowed funds for summer research.
- Re: integrating engin/nat sci and humanities/ss: Have to work hard to recruit humanities/ss students to take a course taught by an engineering faculty member.

### **FAMS/Art/Theater/English faculty, February 18, 2014**

Task Force Moderators: Michelle, Jason, Pat (Kristen)

Contributors: 1 from music, 1 from FLL, 1 from English, 1 from Theater, 1 from FAMS

ADMINISTRATIVE/SECRETARIAL/STAFF SUPPORT: There's a need for more administrative and staff support. Faculty are being asked to assume an unfair (and time-consuming) burden for planning, arranging, facilitating, implementing. No credit is given for this work.

Perhaps more students could be hired as program/department interns?

SPACE: Teaching is stunted because of space. There are many innovative teaching methods that require particular kinds of space. There's a need for a "Writing House" where visiting writers can stay and conduct workshops.. There's also a need for a residence for other kinds of guests. Either the Lafayette Inn is used (which is expensive) or visitors are housed in unacceptable campus houses (which are usually filthy—faculty members have had to scrub toilets, etc.).

We need a better 'highway' to usher in international faculty.

If more classrooms/offices are built downtown or far from the main campus, students will need to be shuttled back and forth. Safety concerns.

SUSTAINABILITY: Faculty have applied for and received Mellon grants which have allowed for innovative curricular changes. But once the funds dry up, so do the programs. How to sustain these changes?

TECHNOLOGY: More support is needed here as well, possibly in the form of trained students who could be assigned to specific courses. A few "Media Assistants" are currently being funded by a grant, but there is of yet no specific plans for continuing this program, nor is there a coherent program for hiring, training and supervising them (along the lines of that provided for writing associates to ensure "quality control").



Perhaps every faculty job description should include a line similar to the following (in addition to the primary area): “experience in developing technological pedagogy.” Colleagues could then teach/assist colleagues.

There is no substitute for face-to-face interaction. A major reason why students attend expensive liberal arts colleges is to receive such attention.

Senior Week could be used by IT to present a range of workshops.

RECOGNITION: We need more ways to make visible the wonderful work already being done on campus.

- Create a “pedagogy showcase” website
- Provide more teaching prizes
- Establish “pedagogy fellows” program
- Have teaching prize winners present panels to which Trustees are invited
- Have a panel on teaching at Trustee/Faculty dinner
- More CITLS events featuring campus faculty

### **Pardee faculty, February 20, 2014**

In attendance: 2 philosophy faculty, 1 religious studies, 1 FLL, 5

#### Innovation to what end?

- Sounds like innovation is being recommended for its own sake rather than putting the emphasis on excellent teaching.
- Implication of focus on innovation is that it then becomes problematic if we find something that works and stick with it.
- Have to take advantage of our experience and ask what we learn by innovating and using technology. Are we more effective teachers?

#### Sharing information about teaching

- We infrequently ask the master teachers on campus how they’re doing what they’re doing and give them a forum for sharing it.
- Don’t know enough about what others are doing. Suggest open houses or mini-classes like those offered to alums, visiting students.
- Programs like those sponsored by the Sloan Foundation in the 1980s gave faculty a chance to work with those in other disciplines and discover connections. Met every day for a week to two weeks during the summer. Received stipends.
- Filming of master teachers so others can learn what works. But those being filmed should have complete control of what is done with the video.
- Reward master teachers for providing help to others: money or course release.

- Mechanism for pre-tenured faculty to sit in on tenured faculty. [CITLS has tried offering but hasn't garnered interest.]
- Difficulty of separating improvement and evaluation of teaching from issues of tenure and promotion and from departmental structure. If we could do this, it would change the culture on campus.
- Need campus conversations on how to best talk about teaching, both for those being evaluated and those doing the evaluation. What does it mean to compile a teaching portfolio or develop a philosophy of teaching? This would help shift some of the focus from student evaluations. CITLS, new faculty orientation could help start these conversations. Need to be sure we get tenured faculty / those doing evaluating just as involved in this conversation as those who are up for tenure or promotion.

#### Facilities: inadequacy of Pardee

- Need central air conditioning. Difficult to teach over noise of window units.
- Newly re-designed spaces don't work well for all; some sentiment that there wasn't enough consultation with those who would be using the rooms.
- Equipment in some of the rooms is at point where it needs to be replaced or repaired—e.g. projectors very slow to turn on.
- Odd shapes of some rooms—particularly long and narrow layout—creates difficulties (e.g., 320B)
- Desks aren't big enough, so students drag two together; disruptive to those teaching in room below.
- More smart boards.
- Have switched to purchasing low quality erasers and chalk, neither of which work well.

#### Other issues

- Charge: recommendation that it be re-written in more understandable language rather than educational jargon.
- Sciences are part of the liberal arts, so don't say things like "ways to integrate the liberal arts with science and engineering."
- All classes should be small. Not over 25.

#### **Catchup Meeting - February 21, 2014**

Attendees: 2 neuroscience/biology, 1 computer science, 1 psychology, 2 English, 2 economics, 1 engineering, 1 geology

Task Force Members: David, Jason, Larry, Pat (note-taking), and Terese,

#### **BARRIERS TO INNOVATION**

- Problems with classroom space (for example, lights running perpendicular to screens in smart classrooms).

- Difficulties getting classrooms for particular kinds of work. How can students do discussion-based or problem-solving based work in slanted classrooms or classrooms with very large tables that can't be moved? "Those damn podiums" (can't use monitor, podium, talk to students). (Pardee 28 is great , but lacks a focal point).
- We have teaching which is underpaid, under recognized, under-reviewed. Scholarship gets more recognition and more money. More balance is needed.
- Only certain facets of our teaching are peer observed. Peer observation hasn't been used often enough for formative purposes. Not enough visitation of senior faculty classes by pre-tenure faculty. Considerable differences among departments with respect to value placed upon peer evaluation. (President mentioned that at Middlebury, every member of PTR has to sit in on four courses of every faculty member coming up for review.).
- More opportunities for team teaching. Need to figure out how to lower costs.
- Student evaluations/ratings are obstacle (especially for pre-tenure faculty but not exclusively).

#### INTERDISCIPLINARITY

- We don't model the interdisciplinary world for students.
- We could model it within our individual classes--(could ask colleagues to come to a class, etc.) What about recognition for this extra work? We need to develop a culture in
- Maybe we need more **short term opportunities for teaching interdisciplinary connections (this was mentioned multiple times)**? Interim as a option? On the other hand, we don't want to sacrifice our deep knowledge; and many of us have significant discipline-based responsibilities and demands.
- Could schedule classes at the same time, combining them at various times.

#### "INCENTIVIZING"

- A structure for a half course? Or three rather than four credit courses? (We destroyed our school by going to a unit system...the reduction in number of required courses reduced the range of opportunities for students.)
- Need more **support staff** (this was emphasized multiple times)
- Need more Skype-like technology but at a higher level—video conferencing. Currently too complicated to make these things happen. Need better recording equipment.
- Use facilities during Interim and summer. (Difficult to imagine how to do that with faculty on a nine-month contract. Feb. 18<sup>th</sup> session: "flat lined" salaries as an impediment)
- Have a schedule in place for examining efficacy of classroom spaces
- Have regular focus issues (targeted?) to discuss these issues.

## **Appendix D: Notes from the Meeting with Students**

March, 25, 2014 from 12:00-1:00pm  
Van Wickle 106

### **Student Participants**

Rachael Trupp, Connor Heinlein, Ryan Monahan, James Klimek, Abigail Williams, Bianca Villanueva, Katria Tomko, Emily Evanko, Aaron Little, Caroline Bitterly, Guennoun Othman, John Walker, Roscoe Young, Chadwick Peterson

### **Task Force Representatives**

Larry Malinconico, Michelle Geoffrion-Vinci, Chawne Kimber, Alan Childs, Jason Alley, John Kincaid

### **Notes**

- Participants introduced themselves
- Larry introduced the TF charge and solicited commentary
- Student responses
  - Detractors from learning (according to individual students)
    - when students use laptops in class, sees how students use them (FB) as distracting
    - Another student talked about student computer use as a positive as it allows for more rapid note-taking
    - One student thought live tweeting took away from the learning experience; spent more time worrying about how to be effective on Twitter than subject matter explored
    - Another student thought having to use Twitter for class was a kind of invasion of personal space
    - Physical space can make discussion based class activity problematic
  - Positive experiences in the classroom
    - Use of visual media
    - Cutting back on textbooks in favor of texts uploaded to Moodle
    - Majority of students had classes (sometimes several) in which Moodle isn't used at all
    - Another student mentioned a class one day of which took place entirely on Moodle during a snow day- saw this as a kind of paradigm shift
    - One student applauded Prof Corvino for making use of texting and Skyping, inviting students to contact him with questions
    - Online forums were seen as useful by several students
    - Online reviews provide more information

- Technology is not enough for students studying languages,
  - Paid student conversation partners
  - Having students/WAs that have ESL training
- Larry asked students to compare/contrast their experiences hi high school vs college
  - One student complained of lecture-focused here
  - One student talked about his classes being PPT heavy, college has been more discussion based for him
  - Another student commented that she would like more discussion oriented work in her science classes, was disappointed on coming here and getting into hard sciences at the lack of it
  - Another commented that he went to a small hs and there he had more interaction with his teachers, whereas coming here and starting with large intro courses was different. He speculated that as one advances in a major that enrollment in classes will get smaller and thus afford better in class discussion and interaction.
  - Another student talked about how important it is to get to know professors through attending office hours, etc.
  - One student talked about the problematic nature of rigorous-based projects in both hs and college; there's always that one kid who did all the reading and is thus depended on to run the show in the group
- Recommendations
  - Even in large classes (such as those that first years usually take) should have a grade or some method to encourage participation or require it
  - Physical spaces such as round table affords more opportunity for discussion
    - Language and history classes, students agree, are more conducive to this
    - On the rare(r) occasions when such interaction takes place in a science class, students struggle to adjust
  - In group based work, there needs to be oversight of what's going on in class and who's taking what roles in the groundwork
    - When asked about students overseeing each other they talked about the problems (social) associated with having to assess each other; this depends on metrics and context
  - One student comments on best group experiences involving presentations, public presentation adds extra pressure to pull one's weight, it's more obvious who is and isn't

- Group or student presentations can provide faulty information that some professors don't correct
- When students turned in their own work that they did in the group made students more responsible and thus improved group performance in general
- Faculty should pay more attention to the increasing price of books
- Larry asked if anyone had been asked to use out of class resources to supplement learning (videos, tutorials)
  - One student mentioned a geology class in which Prof Sunderlin provided a web site all about evolution and had students read it
    - Push back from students, according to one respondent, is that students might feel let down as they might expect the teacher to present that information (to teach it)
  - One student applauded the use of YouTube to show supplemental information related to class and then ask students to create their own videos to demonstrate their own acquisition of knowledge
  - Students in biology were particularly happy with this feature, one commented that textbooks now frequently include technological supplemental features that would be useful and helpful (but more costly)
    - Sometimes use of videos as a conversation starter can create a low affective filter to create a good environment for learning
  - Important to contextualize the use of out-of-class resources.
  - Some feeling that the use of ppt from book publishers gave no additional information from text...pretty worthless
  - The flip side is that some students felt under-placed in a class that thus was a waste of repetitive time.
  - Students recommended better integration when profs make use of "external" supplemental materials.
  - One student applauded the use in his high school of Power School, wished there was info available to students.
  - Another student commented that he never gets enough info about their grades prior to the end of the semester.

## Appendix E: End Notes

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<sup>1</sup> Abigail Williams '15; email communication on March 25, 2014

<sup>2</sup> from "Fostering a culture of innovation":

<http://the8blog.wordpress.com/2014/03/04/fostering-a-culture-of-innovation/>

<sup>3</sup> Apple Classroom of Tomorrow: <http://ali.apple.com/acot2/connections/>

<sup>4</sup> Vygotsky, L.S. (1978). *Mind in society: The development of higher psychological processes*. Cambridge, MA: Harvard University Press. McCaslin, M., & Good, T.L. (1996). The informal curriculum. In D.C. Berliner & R.C. Calfee (Eds.), *Handbook of educational psychology* (622-670). New York: Macmillan.

<sup>5</sup> see the notes from open faculty meeting in Appendix C

<sup>6</sup> Byerly, Alison. "Pass-Fail Option For Professors." *Inside HigherEd*, Aug. 6, 2012.

<http://www.insidehighered.com/views/2012/08/06/essay-urging-new-option-faculty-course-evaluations>

<sup>7</sup> "Changing Course: Ten Years of Tracking Online Education in the United States" The Sloan Consortium. <http://www.onlinelearningsurvey.com/reports/changingcourse.pdf>

<sup>8</sup> Thomas Cavanagh "The Postmodality Era: How 'Online Learning' is Becoming 'Learning'," in *Game Changers: Education and Information Technologies*, EDUCAUSE (2012)

<sup>9</sup> See Bowen, Chingos, Lack, Nygren *Interactive Learning Online at Public Universities: Evidence from Randomized Trails*, ITHAKA (2012). For studies related to specific courses, see the report (<http://www.knewton.com/assets-v2/downloads/asu-case-study.pdf>) on Arizona State University's efforts with developmental mathematics and for a discussion of Carnegie Mellon's OLI statistics course see Strader and Thille's "The Open Learning Initiative: Enacting Instruction Online" in the previously cited *Game Changers*.

<sup>10</sup> "Walk Deliberately, Don't Run, Toward Online Education" *Chronicle of Higher Ed*, March 25, 2013.

<sup>11</sup>

<http://www.psychologicalscience.org/index.php/publications/observer/2013/february-13/interteaching-ten-tips-for-effective-implementation.html>