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Representing the Intellectual Work in Teaching
Through Peer Reviewed Course Portfolios

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Representing the Intellectual Work in Teaching Through Peer Reviewed Course Portfolios

Teaching university level courses is a form of serious intellectual work that can be as challenging and demanding as discovery research. When teaching is undertaken as form of inquiry into the impact a course has on student understanding, the quality and depth of this work can be revealed through writing that reflects the relation between the process of teaching and its results. This chapter will elaborate the basic assertion that teaching is intellectual work, describe a collaborative consultation among professors about their teaching, discuss the value of the products of that collaboration, and consider the place of this representation of teaching in professional life.

Teaching as Intellectual Work

Offering a college course, like any activity, can be done with varying degrees of investment of time and resources. At the high end, there are initial considerations of the material to be covered and the intellectual goals that learners are to achieve. Even in an introductory course that appears to have a standard outline common to most texts, the instructor decides how broad a set of topics to cover. This decision determines the depth to which each topic can be presented and considered by learners, as covering all the topics in a typical text can be a race against the limited time in an academic term. Those teachers who cover fewer topics but in greater depth also have the opportunity to expect deeper understanding from learners, perhaps by including discussions, interactive activities, or supplementary readings. It is also not a trivial matter to identify the conceptual goals for a course: it is necessary to know how the teacher would recognize that a student has acquired the skills and understanding that are intended to be included in the course design. These decisions are contextual in that some instructors assume students are taking a program of courses in a field of study, whereas other instructors use demographic information to identify who their learners are and what place the current course will most likely have in the larger picture of their education. Very different conceptual goals would be appropriate depending on the nature of such an analysis of learners and the curriculum.

A second type of intellectual decision is found in the instructional design for a course. It is conventionally acceptable to provide well-crafted lectures that integrate the reading material with ideas and information from the professor's experience. Some teachers seek out additional ways of interacting with students, both inside and outside of class, including on-line activities, group activities, or individual discovery projects. The identification and evaluation of potential instructional components is not easy, and the implementation of the methods selected can be as challenging as the instrumentation of a research project.

A third form of intellectual activity is inherent in designing the activities that students engage in to demonstrate their understanding of the course goals. Sampling from test item pools provided by publishers or written by teaching assistants represents one statement of intellectual goals, whereas designing writing assignments, applications of ideas, or forms of authentic assessment (activities beyond verbal description) would be a different version of goals. This critical step operationalizes what the professor means by a deep understanding of the ideas being taught. In general, professors believe there is more to their field than a set of remembered answers to discrete questions, and the development of opportunities for learners to show a deeper understanding makes a fundamental understanding of the field of study manifest in course design. Teachers need to find creative examples that can exist within the constraints of the time and resources that both students and teachers have available for the course.

A fourth kind of intellectual work is the evaluation of the effectiveness of the course and how well learners achieved the understanding set forth in the goals. The teacher who views a class offering as an inquiry into the best way to generate understanding in students is a high end version of this perspective. Teachers can examine the evidence of student learning found in the work done in the course, and there are opportunities for reflection on the quality of those achievements. It is even possible that multiple offerings of a course can be considered at one time, resulting in a longitudinal account of the impact of successive attempts to promote understanding. Changing instructional planning and design to improve the learning outcomes of a course involves a variety of intellectual skills ranging from analysis to interpretation to

evaluation. The insight needed to improve the effectiveness of iterative offerings of a course is certainly a high end form of intellectual work.

In many cases our current professional practices of evaluating teaching do not capture these important dimensions of teaching. Typically the majority of influence is left with student ratings of their perceptions of a course and of a teacher. Although the student voice is an essential piece of any view of teaching, it is best suited for those characteristics of teaching that students are in a good position to recognize. Students are the best people to tell us (both teachers and evaluators) whether we are timely, accessible, respectful, open to student perspectives, and complete in our communication. However, there has typically not been an informed voice to offer an opinion of the intellectual quality of the course materials, the appropriateness of the instructional design, or the scope and depth of the student work that is generated by the course. Some student ratings forms include these dimensions (implicitly or explicitly) in the questions asked, producing information that is likely outside the expertise of the rater. Some units ask teachers to include samples of syllabi and assignments that can be looked at by evaluators, but it is rare to find reflective writing by teachers about their decisions and goals and the evidence of achieving them. As a result, the intellectual work we do in teaching is largely invisible in our professional lives, both in personnel decisions and for the purposes of growth and development as teachers. A small percentage of teachers do formal research on teaching or put examples of content or class practice in newsletters or journals on teaching, but for most teachers this work is lost with the end of each academic term. Interestingly, all this work is carefully done and completed, but few professors take the time to record what they did, both for their own future practice and for the benefit of others.

The present work is designed to help professors take that last step of creating a readable record of the intellectual work in teaching. The project plan offers guides to collaborative practices that are useful in developing several aspects of teaching, and it provides support for professors who reflect on their own practices and identify what can be tried next to enhance further the learning experiences of students. Faculty members at the University of Nebraska are

also building a community of readers for this work by identifying like-minded peers who are interested in teaching practices and engaged by offering commentary and reactions to existing work. The peer review of reflective writing (usually in the form of a course portfolio, described below) is useful for both further development of teaching by the author (formative use) and for evaluation of teaching at times of accountability (summative use). We believe there are many college and university faculty members who would enjoy the exchange of reflective writing on effective practices in teaching. Organizing a venue for that exchange will help teachers identify a large and eager audience for intellectual work on teaching.

An Expanded and Collaborative Process of Peer Review of Teaching

Peer review of teaching is often taken to mean a visit to a class by a senior colleague, followed by the filing of a letter evaluating the class visited. The Nebraska project takes a much broader view that goes well beyond the performance of the teacher during contact time. Based on Hutchings' (1996) model of peer collaboration and review, the project provides opportunities for professors to exchange written memos about particular features of a course during the semester in which it is taught. Then in the following semester those separate shorter memos are integrated into a document that presents a coherent account of the goals, practices, and achievements of the course, connected by the professor's reflections on lessons learned and future plans for change. Often called a course portfolio (c.f. Cerbin, 1994; Hutchings, 1998), this document represents activities with the same general characteristics as other forms of scholarly work (c.f. Glassick, Huber, & Maeroff, 1997). The professor describes an intellectual rationale for the work, gives an account of how it was carried out, describes what was discovered, and discusses the general issues raised as informed by the results of the effort.

Components of the Peer Consultation

Each participating faculty member initially writes three brief memos (2-3 pages each) about an ongoing course, and these memos are presented to three or four other participating professors in the same field of study (formed into identified groups by discipline). Each participant also offers (and receives) brief observations or comments on the memos from the other faculty

members in the same group, thus we describe the process as three interactions. The first of these interactions offers an account of the framing of the content and the goals of the course, including the decisions that were made about what would be the substance of the material and of the goals for student understanding. We provide a simple outline as a starting point for the memo, with the clear understanding that individual faculty members have wide discretion in how closely they follow the outline. The outline offers a way to get started, in case the professor is unsure where to begin, but it is not a required structure. The basic outline for the first interaction is as follows:

- Course Goals and Rationale

- What do you want students to learn from your course?
 - What do you want them to know? What do you want them to be able to do? What do you want them to understand? What perspectives or attitudes do you want them to have?
 - What is important for them to learn about your field? What should they learn about themselves as students or as contributors to our society?
- Why did you choose the goals you did?
 - Why is it necessary for your students to achieve these goals? What do you know about your students that makes these goals appropriate for their education?
 - What perspectives of your discipline or field shaped your goals for the course? How did you decide between the breadth of content and depth of content? How is the depth of understanding reflected in your course goals?
- Where are these goals found in the syllabus for your course?
 - What readings or other sources of material are connected with the particular goals of the course? How did your vision of the course influence your selection of topics and resources?
 - Are there any activities for students in the syllabus that are particularly crafted to achieve individual goals of the course?

The second interaction focuses on how the instructor creates a learning environment in which the course goals can be accomplished. It can include peer visits to actual class meetings, which have traditionally been the sole component of a peer review of teaching, but this interaction is intended to capture a broad view of the practices teachers use to promote learning among the students in the class. There can be accounts of lecturing techniques, other in-class activities such as group work or peer teaching, and out of class activities done in studios or labs or even outside formal settings altogether. Many instructional design plans now also include work done through online resources that engage learners well outside the boundaries of conventional classroom instruction. The basic outline offered to participants for the second interaction is as follows:

- Teaching Methods/Course Materials/Course Activities
 - What teaching methods (lecture, group work, question/answer, etc.) are you using during your contact time with students to meet your objectives?
 - How do each of these teaching methods facilitate students' achievement of course objectives?
 - How will you use each of these methods during class time and over the course of the academic term?
 - What course materials (textbooks, course notes, etc.) are you using to meet your objectives?
 - What characteristics make these materials useful to students' achievement of the course objectives?
 - How should students use each of the course materials?
 - What course activities outside of class (such as projects, computer simulations, web exercises, practica, or group work) are you using to meet your objectives?
 - Why have you structured your activities in the way that you have?
 - What, in particular, do you hope your students will learn from each assignment? What are your expectations?

- What is the rationale for the methods you have chosen?
 - In what ways do you expect your choices for methods, materials, and assignments to assist your students in meeting the goals of your course?
 - What influence has your discipline or field had on your choices?
 - Why do you expect that the methods will be effective in promoting the learning you hope to achieve with these instructional practices?

The third interaction focuses on student performance. Professors are accustomed to offering intellectual rationale for the content of courses to curriculum committees when new courses are proposed, and many units already include some form of class visit by a senior colleague to observe teaching practices as a simple form of peer review. It is much less common for teachers to present examples of student performance and to write about how successfully that student work achieves the stated intellectual goals of the course. In this interaction faculty members present examples of the assignments they give to provide students with opportunities to demonstrate their understanding, along with examples of completed student work with the feedback provided by the teacher to the student. They also show a distribution of achievement scores for the whole class on the assignments -- typically a frequency count of how many students achieved in each quality category used in giving feedback. We use the data on achievement in this interaction, not curved grading categories that teachers sometimes derive from class distributions. The written reflection gives the professor a chance to comment on the depth of understanding that students demonstrated, noting how well the original goals were met. The teachers are also encouraged to comment on how many students demonstrated each level of understanding, and they are asked to consider what could be done to help more students achieve in the higher categories. The basic outline provided to guide the third interaction is as follows:

- The Nature of Student Understanding
 - How solid is learners' fundamental understanding of the ideas and skills you were teaching?

- Is there evidence of deep understanding in the work samples you received? How does performance on your assignments indicate students have developed an understanding for your field of study that will be retained and that students can apply to new contexts?
- How does the understanding represented by the work samples you present differ among the students? How do these differences relate to the criteria you use in grading the assignment? How do these criteria relate to the intellectual goals you have set for the class?
- What do your assignments and students' work tell you about how students are constructing the ideas that are central to the course and to your teaching goals?
 - What misconceptions do they have about these ideas?
 - How do you identify and address student errors and misinterpretations?
- Guiding Improvement in Future Offerings
 - Overall, how well did student work meet your intellectual goals for the course? Was the distribution of achievement by students up to your expectations? Was it comparable to previous offerings of the same course?
 - Were there particular parts of the course in which achievement was especially high or low, as compared with the rest of the general course goals?
 - What changes could be made to help more students achieve in the higher categories of learning? Are there particular features of the course that you would redesign? How do you think those changes would improve student understanding?

Reflection on the Course as a Whole

After completing the three separate and brief written interactions, the professors are asked to take a step back, look at all three pieces together, and reflect on how well the instructional plan they carried out was able to generate student performance that meets the original course goals. We suggest that a good way to start is literally to paste the three interactions together with some sections of connecting prose and attach a conclusions or discussion section to the end. This

integrated single document makes a very good first draft of a course portfolio, and reading this draft is an excellent prompt to begin the process of refinement and reflection. The root metaphor for this work is that teaching can be conducted as an inquiry into the most effective methods of promoting a rich understanding of the field in students. This inquiry begins with the goal of achieving a deep understanding and it asks the question “What are the best teaching practices that will help the most students reach that goal?” At the conclusion of an offering of a course, the teacher has an opportunity to review what was planned and carried out in the course and evaluate the plan by looking at the understanding that was achieved. It is the reflective writing on this question that transforms the three straightforward interactions into a course portfolio. It also becomes an exploration of the successes of the course and a statement of the next iteration of teaching that might be expected to improve the depth or breadth of student learning.

As with the individual written interactions, the course portfolio is shared with other professors participating in the project, and those readers offer comments and suggestions for refining both the course and the written analysis of the course in the portfolio document. All of this mutual reading is done in the spirit of making the intellectual work in teaching more public, while still under the intellectual control of the course author. The professor gets a local and relatively private audience for the analytic work done to identify the sources of intellectual growth in students, and the feedback received informs further refinement of both teaching and reflection.

Expanding the Audience for Course Portfolios

Once the course portfolio authors have refined their presentations, the project makes the portfolios available to a wider audience. The professors provide their reflection and the sample of student work to the project staff, and the materials are posted on a password protected Web site that is accessible only to readers participating in the project. These readers are from the same field of study as the portfolio authors, and in many cases they have taught similar courses at their home institution. Initially the readers will be from a small circle of five institutions participating in the project (Indiana University, University of Nebraska, University of Michigan,

Texas A&M University, and Kansas State University), but there is in principle no limit to the locations of the readers given that the portfolios are presented on a Web site. The readers understand that their comments are intended only for the author of the portfolio, and the context for the communication is primarily one of further growth and development of the teacher (in educational parlance, formative review).

The readers have a set of guidelines to frame their comments, though of course all readers are free to offer observations of any kind in addition to or instead of the commentary requested. These guidelines are parallel to the issues raised in the three interactions, and they generally follow the metaphor of an inquiry into successful student understanding. Readers first comment on the intellectual content of the course, including both topics and goals. The guidelines for this component of the review are as follows:

Please evaluate the quality of the course's intellectual content. This evaluation may include but is not limited to:

- appropriateness of course material both for the curriculum and the institution
- intellectual coherence of course content
- articulation of intellectual goals for learners and congruence of those goals with course content and mission
- value/relevance of ideas, knowledge and skills covered by the course

Readers next offer comments on the instructional design of the course, as represented in the course portfolio. Their focus is on the appropriate use of learners' time both in and out of class, with consideration of how well the teaching methods match the course goals. This segment of a portfolio may include either straightforward data on percent of class time actually allocated to different activities (routinely collected for our participants) or first person accounts from a colleague visit to the class. The review of course instructional design is not limited, however, to the teacher's live performance in the classroom context, but is intended to include a broader understanding of the decisions teachers make about how the students will spend the time they give to the course. The guidelines for this component of the review are as follows:

Please evaluate the quality of the teaching practices used in the course. This may include but is not limited to:

- organization and planning of contact time; useful allocation of student time on activities
- opportunities to engage students actively in the material
- opportunities (in or out of class) for students to practice the skills embedded in the course goals
- particularly creative or effective uses of contact time that seem likely to improve student understanding
- activities scheduled outside of contact time that contribute to student achievement (this may include extracurricular activities, group projects, electronic discussions and assignments, or any other planned course related assignments or activities)
- course structures or procedures that contribute especially to the likely achievement of understanding by learners

Reviewers also comment on the quality and distribution of student performance. They are provided with both the nature of the opportunities given to learners to demonstrate their understanding and have examples of student work, complete with feedback from the instructor. A portfolio will also typically provide some evidence of how many students achieve at various levels of understanding. The reader can form an independent judgment of the quality of student work by reading graded examples, and those examples give meaning to the typical frequency distributions that show how many students performed in each category of achievement. Because portfolio writers reflect on the success of learners in achieving the intellectual goals of the course, the readers can also comment on how much intellectual achievement was accomplished. We make a point of using untransformed numbers in preparing the distributions, so the reader should know how much of the planned content, understanding, and skills the students in the class mastered. Teachers may use curve grading systems to determine the judgment categories they report for institutional purposes, but the discussion of student learning is focused on the level of

achievement represented by the untransformed evaluations made by the teacher. The guidelines for this component of the review are as follows:

Please evaluate the quality of student understanding. This may include but is not limited to:

- appropriateness of student performance, in light of course goals, course level and institution
- performance levels that reflect challenging levels of conceptual understanding and critical evaluation of the material appropriate to the level of the course and of the students
- appropriateness of forms of evaluation and assessment, given the stated goals of the course
- creativity in providing students with ways to demonstrate their understanding of and ability to use the ideas and content of the course
- alignment between the weighting of course assignments in grade calculation with the relative importance of the course goals
- demonstration that an appropriate percentage of students are achieving competence in the stated course goals, or identification of reasons why they might not be reaching these levels of competence
- revisions or modifications to the course that could improve performance

Finally the readers comment on how the teacher has reflected on the teaching work that has been accomplished. Observations about the intellectual goals achieved and how further learning could be promoted in a future offering of the course are the heart of reflective inquiry into student learning, and readers comment on the insights and plans offered by the portfolio author.

The guidelines for this portion of the review are as follows:

Please evaluate the evidence of reflective consideration and development. This may include but is not limited to:

- substantive reflection by the faculty member on the achievement of the goals for the course
- identification of any meaningful relations between teaching practice and student performance

- evidence of insightful analysis of teaching practice that resulted from consideration of student performance
- evidence of changed teaching practice over successive course offerings (if present) in reaction to prior student understanding

Including this Work in Professional Life

Given the consensus that the modern professor is pressed for time due to the growing demands of the academic profession, it is reasonable to ask how faculty members are induced to add this activity to their crowded schedules. The current project offers a modest stipend (\$1500 as of 2001) for each participant in the Peer Review Fellowship program, and there is also a pool of funds (currently \$2000) to be used by the four participants from each unit to support their academic activities in general (e.g., academic travel, books, research support, or teaching materials). The amounts are not so great as to be a significant incentive that would draw truly unwilling participants, but the support is a non-trivial thank you for making room among the priorities for discretionary time around the edges of the academic year.

Prospective participants are encouraged to contact prior peer review fellows about the benefits of participation for their teaching. Alumni report that their teaching practices are much improved and refined by participation, and they also report enjoying the opportunity to talk about teaching with colleagues in and out of their own field of study. Some alumni report finding new ways to promote student learning beyond what they thought possible in the context of the institution. General participant satisfaction has been an important part of recruiting of new fellows.

We have also found that participation is greatly facilitated by a clear structure to the year-long program. There are monthly meetings for discussion of the project and general teaching issues, and there are clear dates for the completion of each component of the interaction process. Participants have readings to accompany each of the interactions, and the issues raised in those readings are discussed at meetings. The proportion of faculty members who complete the planned sequence of activities is much higher when there is a clear structure to the experience.

Given the pace of academic life, having an unscheduled set of goals to be done like “independent study” has not produced successful outcomes by the faculty participants. It is also extremely important that each step of the process is acknowledged by peers in the home unit and by project staff, so that professors see this new form of writing as having a meaningful local audience.

Whereas in one sense we offer privacy to each author for the beginning stages of this process, we also find that writers gain more from having feedback and comments from an audience than they lose by having their initial and unrefined work seen by other teachers.

Making the Portfolios Accessible

During the initial stages of the project, the individual interactions are exchanged with a small group of colleagues in the same field of study. These professors are organized as a group in a typical Web-based course site, allowing for ready exchange and commentary. We find this is a very convenient way to view materials without the hassle of photocopying, and it is also very useful for project staff to keep track of the work. Once the professors get to the stage of presenting student work and commenting on it, we move to a slightly higher level of electronic posting. The central project staff scan selected student work, and the material is posted on a Web site that can be visited by all of that year’s participants, regardless of field of study. This enhanced visibility was initially made necessary by technical details of posting scanned files, but it turned out to be a very desirable change from the perspective of the participating fellows.

Once the integrated portfolio is put into its first completed form, the text and the scanned examples of student work are moved onto a professionally maintained Web site dedicated to making this work accessible. It is a password protected location, so only people who are connected with the project (as authors or readers) have access to the materials, and the open format of the site allows for more user-friendly display of both reflections and course materials. In a sense, the professional designer takes the traditional work of the faculty members and presents it in a hypertext format, linking descriptions of student work directly to that work and connecting discussions of class room practices to materials documenting them. Faculty participants like this format, finding it helpful to see a clear and accessible version of their work.

It has also made it much easier for readers from other locations to have quick and easy (but password protected) access to the portfolios.

The General Utility of Course Portfolios

An organized course portfolio of the sort our participants generate can represent the best features of an effective teacher. When teaching is an intentional program to promote student learning, there is much to be learned from an account of it. The portfolios we support include the key elements of inquiry in them. There are clear goals and preparation, methods of instruction appropriate to the goals and to the field of study, evidence of the impact of the process on learners, and reflection by the teacher on what was learned from the evidence of learning to refine future teaching. Such a document is especially valuable if it reports multiple offerings of a single course. You can see how a teacher has learned from the experiences of one term, made refinements in subsequent offerings, and evaluated those refinements by looking at their impact on the depth and breadth of student understanding. These features make a course portfolio a very good exemplar for the model of scholarly inquiry put forward in Scholarship Assessed by Glassick et al. (1997), and the focus on learning is congruent with the emerging consensus that effective teaching is about student understanding rather than the teacher's performance.

A critic might question whether there is any reason to make this work available for others to read or comment on. The scholarly community is typically not interested in case studies or single examples of any kind of work, and it prefers to share findings that have at least some general implications for an understanding of issues in a field. Within the teaching community, there is a similar view (e.g., Richlin, 2000) that a professional should only distribute or publish work that expands on our general understanding of teaching and learning. In contrast, Shulman (1993) argued that there is great benefit to making everyday teaching activities a kind of community property. In addition to avoiding the problem of forgetting the innovations and solutions in teaching from one academic term to the next, written traces of teaching work provide occasions for increased conversations about what works and what does not. These conversations (both live and virtual) provide important feedback that allows for more sophisticated refinement

of teaching practices than would likely occur in isolation. Scholars in textual disciplines refer constantly to the importance of audience for the development of excellent writing and thinking skills, and there is every reason to believe that thinking about teaching also benefits greatly from being in constant contact with an interested peer audience.

The repository of electronically shared course portfolios that is the growing product of our project is different from other collections of materials in some important ways. First, a course portfolio is focused on the success of a single course (although it will often cover more than one offering of that course), and that makes it very different from a general teaching portfolio. A typical teaching portfolio will include a statement of teaching philosophy, listings of many courses offered, perhaps some samples of syllabi or assignments from different courses, perhaps a brief teaching-oriented vita, and often a summary of student reactions to being in the courses taught by the professor. It gives a broad view of the range of teaching experiences offered by the professor. In contrast, the course portfolio gives an in depth account of the effectiveness of a single course through evidence from one or more offerings of that course. The student voice is still present, but it is represented by student work from the course, not by student opinion surveys. Instead of a general statement of teaching philosophy, goals, and practices, the professor's voice is represented by intellectual reflection on the outcomes of teaching the particular course and how that teaching can be modified or improved in the future. A course portfolio would be an excellent item to include as part of a teaching portfolio. Perhaps the ideal teaching portfolio would include several course portfolios, complete with their reflection on effectiveness, in place of the usual pile of syllabi that list only what the teacher planned to present.

Second, a course portfolio is different from what typically appears in journals about teaching, either discipline specific journals or those journals devoted to research on teaching. As is appropriate to the tradition of journal publication, articles are printed only when the editors believe that the material makes a substantial contribution of new ideas, understanding, or results that are of interest to a broad range of readers. Most faculty members are unlikely to produce

such a product in the course of their everyday teaching, and many faculty would specifically decline to participate in the rigors of experimental design, statistical analysis, and critical review that accompany participation in a journal community. Those same faculty members, however, will teach a course year after year, making ongoing decisions about teaching that are informed by how well students demonstrate understanding, and it could be very helpful to them to be in contact with other teachers working informally but systematically on the same topics. These teachers are not in search of truth about how all teaching should be done, but they are deeply interested in making informed choices about what to try next in their own teaching. I hope that a community of writers and readers of course portfolios will find it valuable to interact in this middle ground between high science and uninformed guessing.

In addition to the critics from the educational research community, there are also critics from the disciplinary research community who dismiss the intellectual work in teaching as being low level or even trivial. Sometimes teaching is viewed as application of ideas from research or simply the delivery of ideas generated by the much more difficult and advanced process of research into the general nature of things. Having a career that has included much well-funded research, a substantial amount of journal editing, and many kinds of teaching, I can only say that I have found easy and difficult work in both parts of my professional life. Teaching an advanced seminar to smart Ph.D. students is quite easy work, whereas I have been seriously challenged by trying to create conditions in which lower division undergraduates will embrace the findings of basic research in learning and develop the generalized ability to use those ideas in new contexts. Doing a series of programmatic or parametric basic research studies that follow a well established trail of procedures and findings is not all that intellectually challenging, but finding a completely new way of framing a research question to resolve a conceptual dispute is more difficult. For me, the range of difficulty in the two domains seems very similar, and it is not the case that one is easy and the other hard.

Finally it is likely that some teachers who create course portfolios and refine them through formative peer review will feel that these documents represent their intellectual work very well.

In those cases, at the discretion of the author, the course portfolio could be included in materials used for periodic evaluative review at key points of accountability. When being considered for tenure or promotion a teacher could ask that a file of refined course portfolios be sent to external readers who are known for their teaching, and letters could be returned with an arm's length view of the quality of the intellectual work represented. This approach is the standard method used to evaluate research work, and when a teacher has produced concise documents that represent teaching work it would be reasonable to adapt that same process. The opinions of independent experts who read our intellectual work has been the standard of judgment in academics for some time, and we can improve the standing of the intellectual work in teaching by giving it the same degree of respect and consideration. Just as not all professors regularly produce written reports of original research, not all professors will produce course portfolios. Those professors who wish to be considered excellent in the teaching portion of their professional work, however, can have the opinions of professional peers to complement the existing student voice in the evaluation of teaching.

Conclusion

A program of faculty fellowships has been established to support and guide professors in the creation of course portfolios to represent the intellectual work in their teaching. The program helps faculty identify the decisions and plans they have already made, and it gives support in examining the depth and breadth of student understanding as evidence of the success of teaching. The creation of reflective, integrative electronic documents promotes a community of readers who can provide feedback to guide further refinement of teaching efforts.

To me the most important benefit of creating a community in which course portfolios are regularly created and read, is that we no longer lose a great deal of intellectual work that is regularly being done. Talented people find ingenious solutions to problems in learning every academic term, and traditionally most of that work is lost. When people know that there is a community of people who will look at their work, especially the cumulative intellectual work of several offerings of a course, they will be willing to take the modest extra steps of recording and

reflecting on what they are already accomplishing as teachers. As a result, there will be a large community of teachers whose decisions about how to teach will be informed by the collective effectiveness of their work.

Author Notes

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