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For a number of years we have been encouraging faculty members to see their teaching as intellectual work. Each offering of a course provides an opportunity to ask how well students have understood the ways of thinking and analyzing that we describe, explain, and model. When teachers look at student work from a course, they can determine how effective the experiences in the course have been, and that examination will inform their practices the next time the course is offered.

When Richard Lariviere became Provost in 2006, he read some of the individual course portfolios on CTE’s web site that captured the inquiries in learning that faculty members had undertaken. He liked the spirit of that work, but he wondered if the same frame of mind would not work for the learning that takes place in a whole program or major. After some discussion, he invited a dozen departments to consider what they hoped to accomplish with their teaching. As part of that invitation he wrote:

“University faculty members choose their profession out of a deep interest in their fields and in the education of students at all levels... This year I will ask faculty and departments across the whole campus to consider what is most important about all aspects of their work. [A] more limited project will take advantage of those conversations to focus on graduate and undergraduate teaching. Department faculty will ask what an accomplished student in their graduate program or major should be like upon completion of a degree, including some mix of knowledge, skills, professional preparation, and ability to understand the world through the education provided. Each unit will also identify where in their work students demonstrate those qualities that the faculty believe are central to the program.”

Since that first invitation in summer of 2006, more than 20 programs have begun internal conversations about their educational goals. In the long run, each program will ask what it hopes to accomplish and how the faculty will know what students are learning through their experiences. This issue of Reflections From the Classroom provides a glimpse into how five departments approached the invitation offered by the Provost. The total project goes by the name “Documenting Undergraduate and Graduate Learning Success,” and here are a few of the variations on that theme.

Over time, we hope that most KU departments will have a version of this conversation, through which they can find out how well they are achieving their own goals for their students. So far, it has been fascinating to see how the work of an entire program has the same features of scholarly inquiry that can be seen in an individual teacher’s work. I hope you see your own goals for your students in the experiences of these departments.

Dan Bernstein
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Closing the Loop: Identifying Program Goals, Assessing Learning Outcomes and Re-examining Practices

Holly L. Storkel
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Intercampus Program in Communicative Disorders

The KU Intercampus Program in Communicative Disorders (ICPD) is a unique program that provides graduate education to students in speech-language pathology and audiology. The ICPD combines the faculty, research, and clinical facilities of two departments: Speech-Language-Hearing: Sciences and Disorders, located on the Lawrence campus, and Hearing and Speech, located at the Medical Center in Kansas City. Changes in certification requirements for speech-language pathology that took effect in 2005 led to changes in the master’s speech-language pathology program. Specifically, previously our national organization mandated that graduate students needed course work in certain topic areas, as well as clinical experience with specific communication disorders. Our national organization was dissatisfied with this approach, because it was felt that merely providing experiences did not guarantee learning. Therefore, they decided to move to a system of accountability whereby individual programs had to identify learning outcomes and assess how well students were achieving those outcomes. This parallels a more general national movement to document learning outcomes at the university level. In this article, we share our experiences in attempting to identify and measure student learning outcomes in the hope that other departments can learn from our experiences.

Establishing outcomes
Although the impetus for documenting program learning outcomes was a mandate from our national organization, this mandate was fully embraced by our faculty. The faculty was motivated to identify and measure learning goals as a more effective means of evaluating program success and identifying areas for revision. Curriculum meetings, involving all faculty, were scheduled twice per semester beginning in 2003 and continue to present day. These meetings were scheduled prior to faculty meetings and well in advance (i.e., at the beginning of each semester) to facilitate regular attendance. Working with this large group with longer intervals between meetings was somewhat cumbersome for initial development.
efforts, so we frequently formed small working groups to take an initial pass at a given issue. In forming groups, we attempted to ensure that different perspectives were represented within a group (e.g., different training environments, different topic expertise).

During the 2003-04 academic year, general program goals were identified. This process began with a small group consisting of three faculty members who had expertise in a specific content area (i.e., speech sound development and disorders in children) and who represented both campuses and training environments (i.e., clinic and classroom). This small group attempted to write program goals for their specific content areas. In generating content-specific goals, the group realized that their goals could be formulated with more general terms and could apply to all content areas of the program. Thus, five global program goals were brought before the full faculty for discussion and revision. In additional curriculum meetings, courses and clinical experiences were examined to determine where in the curriculum students were potentially meeting these goals for the different content areas of the program. This process revealed that there were various ways for students to meet program goals in each content area. For this reason, curricular offerings were deemed appropriate. In addition, a standard syllabus format was agreed upon so that more detailed course goals could be cross-referenced with the program goals, making alignment of program and course goals more transparent.

While these initial program goals were helpful in defining the mission of the program and providing alignment across content areas, levels of performance were not identified. Identifying levels of performance was viewed as particularly critical by the faculty because this allows tracking of student growth across the two-year master’s program. At the same time that this need was identified, the program was invited to participate in the Provost’s Project on Documenting Undergraduate and Graduate Learning Success (2006-07). A small group consisting of three authors was formed to attend meetings related to the Provost’s initiative. This group represented both campuses, both training environments (clinic and classroom), and a diversity of content areas. The goal for this small group was to draft a program rubric which contained more detailed program goals, as well as levels of performance from novice to advanced. The group used the original program goals and existing course and clinical rubrics to identify more specific skills that cross-cut different content areas. For each skill, four levels of performance were determined by thinking about the types of performance we were likely to see (or would want to see) as students move through the program. The rubric was subsequently presented to the full faculty for discussion and revision.

The final rubric is being used this year in two ways. First, individual instructors are using these rubrics as templates for course or clinic specific rubrics. An individual instructor or supervisor can select skills from the program rubric that are relevant to his or her specific activity and then adjust skill descriptions or levels of performance to best capture relevant content and skills. This alignment of a program rubric with course/clinic specific rubrics provides continuity between individual goals and evaluation methods and program-wide goals and evaluation methods.

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Measuring outcomes
Prior to 2003-04, student assessment primarily was summative in nature. That is, students completed projects and exams as a part of individual course requirements and participated in final oral examinations as required by the university. At the end of their program, they also took a national examination that reflect-
ed knowledge across the areas identified by our accrediting body. Our national organization mandated that graduate programs require formative assessments, in addition to the more familiar summative assessments. Additionally, our faculty recognized that weaknesses identified at the end of a student’s program in the final oral examination could not be remedied before the student graduated. For this reason, interim formative assessments were viewed as desirable so that weaknesses could be identified earlier in a student’s program and could be remedied before the student graduated. Thus, our faculty on both campuses met on several occasions to develop formative questions and grading standards for a written formative examination to be administered at the program midpoint (i.e., end of Year 1).

Achieving faculty consensus on the structure and style of the formative assessment took considerable effort. The first effort resulted in a series of content-specific questions that looked remarkably like a summative rather than formative assessment. The faculty went back to the drawing board and developed a series of eight general questions that were written in such a way that students were expected to apply academic information to clinical and professional settings. Students selected four of the eight questions to answer, completing the formative assessment at the beginning of the third semester of their graduate program. Each student’s responses then were graded by two faculty members using a continuum rubric (i.e., does not meet the standard, meets the standard, exceeds the standard). Individual advisors subsequently met with students to review performance.

Students in the 2004-05 academic year were the first group to complete the formative assessment. Although faculty spent considerable effort in developing the exam, we initially neglected to consider ahead of time how we might evaluate collective student performance. Faculty met as a group to discuss their impressions of student performance. It was decided that a more formal means of data collection was needed so that we could “close the loop” in our assessment procedures. That is, we wanted to be able to examine the collective performance of the students to identify any weaknesses that occurred across students and consider ways of revising the program to bolster performance in those weak areas. When the second and third formative examinations were administered in 2005-06 and 2006-07, we collected quantitative (i.e., percentage of students meeting or exceeding standard) and qualitative data (i.e., example student papers from two high-, two average-, and two low-performing students) for discussion. When quantitative data from Years 2 and 3 were compared, the faculty expressed disappointment in the results, noting that students were not demonstrating the quality of responses expected. Although many students were meeting expectations, few were demonstrating exemplary performance. In addition, consequences of poor performance were not clear to students a priori and potentially were variable across individual advisors. As a result, three additional documents were created for the 2007-2008 academic year. The first was a formative exam review summary completed by each exam reviewer, summarizing the student’s strengths and weaknesses and suggesting potential consequences. The second was an action plan form that the advisor generated with the student, summarizing strengths and weaknesses and creating a clearly outlined and binding plan to address weaknesses. The final document was a list of suggested consequences for specific weaknesses that advisors could draw from in creating action plans. In this way, action plans were individualized to student needs and took a variety of forms, including topic readings, meetings with instructors, or work in the writing lab, yet still maintained some uniformity across advisors.

After evaluating student performance over three years, the faculty felt that the formative exam was identifying weaknesses in student learning and providing a means of addressing those weaknesses prior to graduation. However, there also was consensus that the feedback provided by the formative assessment rubric might be too general and that the full range of entry level skills was not being tapped by the current evaluation tool. The faculty decided that specifying levels of performance for program goals would aid in tracking student progress, and that a formative assessment that was a more integral component of the program would be more desirable. Returning to our subcommittee of three authors, we developed two program rubrics to identify levels of performance for a more specific set of program goals. As
mentioned earlier, these program rubrics can be adapted to individual courses or clinics. This allows for clear feedback across experiences, as well as tracking of student skill acquisition across experiences. Within an experience, individual student performance can be summarized to identify common weaknesses across students that can then be addressed during the course or clinic. We subsequently took these documents back to the faculty for review and approval. Several faculty volunteered to utilize these program rubrics in their 2007-08 courses. Our future goal is for more instructors to adapt the program rubrics so that performance across courses and clinics can be summarized to identify overall program strengths and weaknesses, thereby closing the loop.

A pilot portfolio project was initiated in the 2007-08 academic year as a means of making the formative assessment a more integral component of the graduate program. Approximately 30% of the entering graduate students in 2007-08 were recruited for this project. These students will archive a portion of their course and clinical work each semester of their graduate program. At the end of two semesters, they will complete a self-assessment using the program rubrics for diagnostic and treatment skills and use this information to identify personal strengths and weaknesses. Students then will meet with their advisors, who will review the portfolio and the self-assessment and help students develop an action plan to improve weaknesses. During the second year of the program, students will continue to archive work in their portfolio and will complete a final self-assessment at program completion. The goal of the final self-assessment and portfolio review is to help the student identify areas for continued learning as she or he transitions to a career. This pilot project will be used to determine whether portfolios are a richer source of formative assessment and should be required of all students. In addition, the pilot project will be used to establish guidelines for future portfolios, addressing issues such as how many samples of work should be archived in the portfolio and how frequently the self-assessment and portfolio review should occur. We also will examine how to best aggregate information across individual portfolios as a means of evaluating the success of our program as a whole and for identifying areas for future revision.

Closing the loop

National pressure is mounting for universities to document learning outcomes for all students. In many professional degree programs, this pressure already has been translated into policy through revision to accreditation standards. While we may balk at this potential external mandate, our experience is that there are benefits to creating transparency between program learning goals and course/clinic-specific learning goals. Chief among these is alignment of goals across experiences so that both faculty and students can keep their eyes on the prize. Moreover, clearly identified goals lend themselves to program-wide assessment. The benefit of program-wide assessment is that areas of strength and weakness across students can be identified so that informed program revision can be undertaken. Documenting student learning outcomes forces us to close the loop and take action if those learning outcomes are not as expected. Ultimately, this cyclical practice of identifying learning goals, assessing learning outcome, and re-examining program practices will lead to stronger programs for all students.
We first heard about the official KU effort on learning success when Dan Bernstein visited the journalism faculty during our pre-semester retreat in August 2006. We realized that developing better learning-assessment tools would be a worthwhile endeavor, but many of us were confused about what to do exactly. With the assistance of the Center for Teaching Excellence and other units participating in the Provost’s Project on Documenting Undergraduate and Graduate Learning Success, now we have a better understanding. We are happy to share what we have learned in this process.

**What to evaluate**

We all want, and try hard, to be good teachers. But how do we know we have done a good job? In other words, what can we do to better assess student learning?

To assess student learning, we need to know what to measure exactly. We have identified two sources of criteria/objectives: our mission statement and the expectations set forth by the accreditation body in our discipline, the Accrediting Council on Education in Journalism and Mass Communications (ACEJMC), which happens to be housed in our building.

Our mission statement reads, “The mission of the William Allen White School of Journalism and Mass Communication is to teach students to think critically and creatively while preparing them for careers in journalism, mass communications, and related fields and for graduate study.” In other words, our students are expected to be critical thinkers with integrity who have mastered a wide variety of research and communication skills. According to the ACEJMC, we are expected to teach 11 professional values and competencies including freedom of speech and the press, diversity, history and roles of professionals, theories, ethics, critical thinking, research, writing, evaluation, statistical concepts, and technologies. These items serve as the foundation for our self-assessment.

**How to measure**

Once we had identified what to assess, we began to develop specific measurement tools. Last year, a few weeks into the semes-
ter, we surveyed students in our introductory Journalism 101 class about their knowledge of mass media, as well as their understanding of journalism and mass communication laws and ethics. We wanted to establish a baseline for how well our new students were able to analyze media content and professional practices in a critical way instead of taking everything for granted. For instance, were they aware of the issues related to media ownership and concentration? Did they know how to maintain fairness and balance while reporting a news story? We plan to conduct a similar survey among this cohort once they become seniors so that we can identify what they have learned in the classroom, including from a required course in media law and ethics. These surveys will be conducted on a regular basis in the future.

Using the same before-after comparison approach, we have implemented a grammar test for our students. This test is given twice—once before or soon after students are admitted to the Journalism School as majors and again when they are taking a capstone class. After all, we believe that good communicators must master grammatical rules.

Other surveys are taking a “one shot” (versus before-after comparison) approach. We have conducted exit interviews among our new graduates about their experience with the Journalism School. Informally we have surveyed our alums about the value of their education. For instance, we host alumni gatherings at various locations throughout the country several times a year, and in such events we have received valuable feedback.

We have two tracks in our program: news and information, and strategic communications. The former trains students to work in news and other media organizations to produce content, while the latter prepares students for careers in advertising, public relations, and marketing. In a capstone class, students are expected to demonstrate all the skills they have acquired in previous courses. For instance, in Journalism 676 (Strategic Campaigns), students conduct research and then design advertising, public relations, and other relationship-building materials to promote a real, outside client. In recent years we have worked for the KU Alumni Center, Sprint, Chipotles, Blimpie, Kansas Public Radio, Kansas Union, Center for the Remote Sensing of Ice Sheets, Helzberg Diamonds, Cottonwood, Haskell Indian Nations University, City of Overland Park, Dole Institute of Politics, Ottawa Herald, KU Biodiversity Research Center, and Kansas Audio-Reader Network. Students present their work to the client in a formal presentation open to the public. In this way, student teams are treated like agencies whose work is judged by professional standards. Clients fill out evaluation forms and provide oral critiques.

Additionally, most of our students do internships with media or related organizations. Their internship supervisors fill out an evaluation form, which provides useful information about students’ skills and knowledge. Such information gives us direct feedback about whether we are teaching students what they need for a successful career.

We have begun discussions about how to standardize evaluation forms used in capstone classes and internships, in order to address specific outcomes expressed in our mission statement and accreditation criteria.

One advantage we have as a professional school is that our students participate in national student competitions sponsored by organizations such as the Public Relations Society of America, American Advertising Federation, and Hearst Journalism Awards Program. Our students have been multiple-year winners in these contests, which is one meaningful way to judge the quality of education we provide.

Another plan we have is to begin archiving student work created for capstone courses and competitions, along with external evaluations. In this case, we would have one more form of documentation demonstrating student learning.

Work in progress
Every class in the Journalism School reflects or covers some of the student-learning objectives stated in our mission statement.

External reviews

We have concluded that an anecdotal, piecemeal approach, while moderately satisfying, is not as engaging and compelling as a coordinated, scientific, multi-tiered approach to assessing student learning.
and AECJMC accreditation criteria. When students complete their curriculum in the Journalism School, ideally they will have fulfilled all the objectives. Therefore, it might be worthwhile to make sure that the learning objectives articulated in course syllabi reflect the language in such criteria. The journalism faculty would then review the syllabi of all courses to assure that we have covered all the objectives we have determined.

Another work in progress is to develop grading rubrics for specific assignments in order to better explain our expectations to students. Following the valuable examples we have obtained from CTE and Provost’s project meetings, we have designed rubrics to describe three levels of demonstrated learning by students—threshold, competent, and advanced. We have done so for single assignments in two large required classes and will continue to develop more for other courses. We have found such rubrics very useful for both the teachers and students.

Conclusion
A small irony embedded in our study of student learning is our faculty’s focus on its own learning objectives: We want to learn how much our students are learning. And we have concluded that an anecdotal, piecemeal approach, while moderately satisfying, is not as engaging and compelling as a coordinated, scientific, multi-tiered approach to assessing student learning. Equally important, we have concluded that assessing student learning should not and cannot be a full-time occupation. Instead, with some guidance from other departments participating in the Provost’s project, we are mostly modifying and coordinating assessment measures already in place. Perhaps like our own students, we want to learn without resorting to extremes.

Professional marketers have long had the expression “Did the needle move?”—meaning, as with a VU meter, “Did measurable change occur?” As we consider our mission statement, our accrediting standards, and our obligations to our students and the University, we are using surveys, interviews, client and internship feedback, competitions, and assignment-evaluation rubrics to answer that all-important question: “Did the needle move?”
Dan: What we’re about to do is to try to capture your experience in working with your colleagues as part of the Provost’s Project on Documenting Undergraduate and Graduate Learning Success. What lessons did you learn from starting the conversation? Once it became clear that you wanted to talk about department goals, how did you go about having the conversation?

Amy: John had the excellent idea of coming up with a draft which, if you know the dynamic of our department, is, I think, often a good way to go—give people something to work with rather than just free association. That worked really well.

John: After meeting with you, I drafted a set of goals based on a talk Amy and I had about what the basic goals of teaching art history are. What’s interesting is that the two of us worked these out, presented them, and there was surprisingly little disagreement, only a bit on the wording of a couple goals. Some of these I think we picked up from rubrics that you’d given us, but the goals articulated were basically these: One, describe works of art and/or objects of material culture; two, analyze works of art and/or objects of material culture; three, describe and analyze an argument; and four, create an argument. They all have to do with looking. We are a field that is about looking, translating what we see into words and then responding to the written word and being able to ultimately create arguments of our own.

Amy: It was very helpful that we sat in on a couple meetings with other departments with you, Dan, to listen to what other departments are doing. During the meetings, I’d often think, “That would work for us; that, however, would not work for us.” I don’t know about you, John, but I thought that we had a sense of what the possibilities were by listening to other departments. Even if they were very different from art history, we could still get a feel for something that might work for us.

John: A lot of the examples were from social science departments. They’re accustomed to a quantitative way of thinking, so applying those methods to themselves was easy. For us, that way of thinking doesn’t come naturally. As we looked at products from other departments, other examples of rubrics, we could be impressed with them, but there was a sense of, “That’s not us. We’re not prepared for that; we’re not used to thinking in those ways.” I think in some ways it was saying—I’m not trying to make a big humanist-social science split—we’re humanists and we’re used to describing and looking. We are
not quantitative people. This was one of the challenges, to come up with something that felt right to us as art historians.

Amy: We had to think about, basically, what do we do and what do we want students to be learning to do. We had to think about it in the most fundamental way, and I certainly hadn’t thought about it in that fashion. I tend to think about content, not method, not what the underlying skills are. I actually thought that was kind of neat. For once I was putting first the notion of skills, which I do build into my courses, but it’s not the first thing I think of. By being part of this project, we were compelled to think about what the fundamental skills are, what it is that we hold in common as art historians, because we always distinguish ourselves as faculty by what we do that the other person doesn’t do.

John: We don’t often talk about what we do in common.

Amy: That was using a part of our brain that doesn’t light up too often.

John: Even in that, take a skill as simple as “describe works of art.” Some of our colleagues, I think wisely, said, “I don’t consider everything I look at a work of art,” or “I have to provide lots of context if I’m introducing art from a part of the world that students aren’t familiar with.”

We ended up having to say, “Describe works of art and/or objects of visual or material culture,” to be more encompassing. In some ways, to list the basic skills of art history touches on some of the possible friction in the field, in terms of describing what it is we do. Fortunately, we were able to see the skill list in a way that we didn’t have a fight over it and could just say, “Okay, big tent.”

Dan: You choose that term nicely, inclusively.

John: Rather than having a battle about what we do, we were able to say that we do different things and use the broadest terminology that we could to talk about it.

Dan: I think those four goals you identified are so clear. There’s much more than that to your discipline, but those are the things that are fundamental, foundational, essential. People from different points of view could see their own work mapping onto those four goals.

Amy: I believe so.

Dan: Once you set the goals, how did you go about trying to figure out where in the curriculum students would be practicing or showing those skills?

Amy: Well, that is still a work in progress. We’ve launched into that, and not to put the end of the story first, but we’ve found out that we need to refine where we are looking for these things. Initially, our approach was to get a broad spectrum of different materials from different faculty. We targeted our 500-level classes, because most people teach a 500-level class in any given semester. Also, that level typically incorporates juniors, seniors, and beginning master’s students. So, for those reasons of convenience, and again for breadth, that’s what we targeted.

John: Basically, the way our department is structured, we give introductory courses at the 100, 200, and 300 levels, and then
everything pretty much jumps up to the 500 level. The preponderance of our undergraduate teaching, other than surveys, is at the 500 level, so it seemed like a convenient approach to focus on those courses.

Amy: For us it made sense in terms of the amount of material we could gather and the breadth of faculty members we could gather it from. Also, in a 500-level class we might expect to see some student successes in the skills we are looking for, whereas in a 200-level class we might be looking for something that is in its infancy.

Dan: That’s a key point. Were you also thinking about where you might find a lot of student writing?

John: Yes. A couple years ago, we agreed upon some guidelines for our lower-level courses, which included that each course should have two writing assignments or a chance to revise. I was surprised to find out we aren’t always applying those guidelines at the 500-level. We all think that we should have done that, but we do have writing at the 500-level. We’re trying to push writing throughout all levels, because we get frustrated with 500-level students who can’t write well or graduate students who can’t write well. We’re trying to find ways to not blame it on other people, but take some responsibility for our students’ ability to write.

Dan: So, you started from a broad sample. What happened when you started looking at it?

Amy: We looked for different types of writing. One type was the term paper, an end of the semester, research-type paper. We also looked at more specific assignments. For example, students were to write a detailed formal analysis of a single work of art; that was a particular assignment of one faculty member. In other cases we looked at the long-essay portion of exams. We were really trying to cast it as broadly as possible.

John: We left it up to individual faculty members to select what they wanted to submit. We told each person to pick one assignment/test/example from his or her 500-level course that exhibited writing. So, we got a variety of types of assignments.

Dan: That’s a wonderfully open invitation.

John: Yes. I think the three of us who read the assignments observed that just beginning to read our colleague’s assignments and student’s responses was an eye-opener. Aside from any judging or putting scores on them, just seeing, “Oh, this is what happens if you give this type of assignment. Our students can do this. Or if you give that type of assignment, they can do that.” I know I found that enlightening.

Amy: We also think it could be a way to get more faculty involved in reading the student work. It’s not so much the quantitative aspect, such as scores or how our students are doing in the aggregate, but getting to see different types of assignments that various faculty members are doing, how successful students are at them, the strengths that were brought out. It was fascinating to see what other people were doing. Also, I recognized students who I had thought weren’t very enthusiastic in my class and here they were doing wonderful work for someone else, and it was very energizing. I think that is the way we’re going to get more of our faculty interested in this work.

John: Another point is that this is about the only time I’ve been involved in thinking about other people’s teaching that wasn’t part of a promotion and tenure process. So often we think about our colleagues as teachers only when either we’re going up or when they’re going up, but to actually look at someone else’s work is a unique experience.

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students had pulled together from information on the web. That was a happy occasion for me. I could say, “Oh, there is some use for this, and students can make use of it in smart and discerning ways.” But we’re not answering your question.

Dan: You are, beautifully.

Amy: Dan’s question is: What happened after we looked at it?

John: I think one step of it was our own experience. I know that when we reported back to the faculty, we talked about what a wonderful experience it was, hoping that others would want to rotate through the reading committee. I think it’s a great opportunity.

Dan: That’s a very important thing for others to hear; if you do this work every semester for 20 years, it becomes drudgery, but to rotate through is a terrific opportunity. And it’s almost a way to develop your own teaching—by getting good ideas from others or trying out ideas.

John: Exactly.

Amy: Regarding what happened when we applied those goals—when we looked for all four goals in every type of writing that we had collected, we were a little confused at first as to what was going wrong. The fact is, we did not find them. And only later, in talking to you, Dan, did we come to the realization that of course we wanted to find all four of them in every type of writing, but some of the assignments were not structured to ask for those things. In other cases we didn’t know what the faculty member was looking for, because we didn’t have the instructions or hadn’t been in the class to know what had been reviewed. That was our first big eye opener: you can’t look for every goal in every writing assignment.

John: We tried to follow Dan’s suggestion and go for the low-hanging fruit; we’ve tried to make this as simple as we could for ourselves. Amy developed a form with just three scores: 3—the student utilized the skill; 2—the student attempted to use the skill but wasn’t successful; and 1—no evidence that the student attempted the skill. We also used the score NA when a skill wasn’t called for in an assignment. We found that with the basic skills of describing and analyzing works of art, we were giving mostly threes and some twos. When we got to skills concerning arguments, both analyzing and constructing, we had widely divergent scores from not applicable to a one or a three. We weren’t as sure about what was going on with the assignment, and that is when we came to you and said, “Look at this.”

Amy: Yes, we were confused.

John: I thought we were going to average or compute the scores. Once I saw the scores, I realized they weren’t going to yield anything in and of themselves. It was interesting enough to see that students could do skills one and two.

Amy: They could do skills one and two, but we needed to refine our targeting of skills three and four, analyzing or constructing arguments, because it turned out they weren’t demonstrated. No wonder there was confusion; we were looking for something that may or may not have been there.

John: Right. If someone assigns a formal analysis, argumentation won’t be present. It’s a different type of assignment.

Dan: Do you ever find that people say they don’t do that or they are never going to assign that, or are they saying, “I wish students were developing or analyzing an argument”? Do you have any feedback from people about—again, you don’t give feedback that this course does and this course doesn’t—but, in general, do you see that they reflect on their own teaching in any way?

John: There were faculty who reflected on their teaching. I can’t remember if they were among those of us who read the student work or if it was when we brought it up with the broader faculty. The question would be were we able to view the skills that were helping our students and were we able to make a connection between those skills and the type of assignments that demonstrated them? It’s not saying that every syllabus has to have assignments that reflect every skill. But we hope that, in many different courses with many different syllabi, skills will be called upon.

Dan: That is a nice point. Was your experience, then, that there was an ample opportunity to see that there were enough assignments that did one or the other?

John: We got hung up on that question—trying to figure out whether the faculty member had asked for something or not. So, we decided that when they turned in copies of student work they needed to note which of the skills they were looking for.

Dan: How did people react to that?

Amy: They were okay. They just wanted to know what to do next. They asked if we were still in collecting mode. We said yes,
and we asked if they were teaching a 500-level class, we needed to see three or four examples chosen from their writing assignments, as well as what they were looking for. We did tell them that we were going to move on from skills one and two, because it looked like both skills were being amply exercised by all of the students in all of these classes; that was great. What needed refinement were the arguments, skills three and four, and we would need their help, information about what the assignment was and what they were looking for so we would know, and everyone seemed good with that.

Dan: Would it be anything more complex then attaching the assignment itself, or does the assignment sometimes have things that are implicit?

Amy: For exams, in particular, a teacher may have a one-line question, but he or she expects the student to reiterate an article that was assigned a while ago.

John: The A answer would, in fact, bring up an argument.

Amy: Right. We would need a little more help with that, but that would be easy for faculty members to do. I do want to reiterate what John said. I think it’s kind of cool that art history majors would, in the course of taking all their classes, get all of these things and that they would not all necessarily have to be found in each and every list. We do have a wonderful list in our department that we work from, but it is different than these skills. The list specifies activities—exposure to this and that—but it is not a skills list.

Dan: What is the department list?

Amy: It has to do with method—students are to look at an original document, read something that is secondary scholarship. It’s exposure to the methods of art history. Our four skills are more fundamental.

John: The ones we’ve drafted.

Amy: Yes, they work together, but they are not the same thing. I thought it was terrific, and it was along the lines of my experience of reading a paper based on web sources. I would think, “Well, they can learn that over here, and I can give them these other things over here, and John can give them something else over there, and together it would produce all of these things.”

John: In a way, it produced a Trojan horse, as a more positive image. As a way to get to talk about what we do, in the last few years we’ve had volunteer meetings based on pedagogy two Fridays a month. It’s been another way to talk a little bit about what we do collectively, or to collectively talk about what we do.

Amy: We talk about our collective effect, too. What do art history majors have when they are done going through our hands? What do they have and what should they have?

John: Early in this project, one anxiety was determining whether we were trying to do a longitudinal study of first year through fourth or fifth year students. Were we trying to understand individual faculty members? We don’t know if we are doing anything beyond this, but we were able to find richness in what we already do without having to get into something more complex. That goes back to your notion of low-hanging fruit—don’t make it too complex, just go in there and do something.

Dan: The doing helps you figure out what you want to do next. Do you want to keep doing this, or will you refine it somehow in the future?

We were able to find richness in what we already do without having to get into something more complex.
we’ve had conversations about pedagogy, they have been fruitful. We haven’t always agreed, but it is exciting to have these conversations. I mentioned to my chair once that I’m more likely to come into our seminar room on alternative Fridays to discuss teaching than to trudge up the hill to CTE. Couldn’t we just have discussions here in the department about how we do things? And now we do. We talk about questions like: How do we test? Why do we test? What kind of paper assignments work? Simple questions that made me think, “I’ve been in this for 15 years, and how often have I talked to colleagues about it?”

Amy: It is a pleasure to hear how things are done in other departments. I don’t think that is any kind of criticism. It is just, again, low-hanging fruit.

Dan: I like Amy’s point that other departments’ ideas are stimulating.

Amy: They are stimulating even if you don’t imitate them; they get you thinking along those lines.

Dan: I can’t thank you enough, for your work and your willingness to keep moving even when it didn’t make sense at times and especially for your very generous reflections.
Pain-free Departmental Collaboration on Improving Learning

Sara E. Wilson
Mechanical Engineering

“If you’ve done six impossible things this morning, why not round it off with breakfast at Milliways, the Restaurant at the End of the Universe?”
—Douglas Adams

If your professorial life is anything like mine (and I’m certain it is), you are meeting grant deadlines, writing journal papers, trying to keep track of graduate students’ research projects, developing lectures and assignments for students in your classes, keeping up with grading, attending meetings, wading through emails each day... Does it seem like you’ll never be caught up? So, I can understand why you may roll your eyes when I suggest that your department might, as a unit, consider student learning not only within a single class but also across a curriculum. This is why I would like to propose “pain-free” departmental collaboration on improving student learning.

In 2007, our department was asked to participate in the Provost’s Project on Documenting Undergraduate and Graduate Learning Success, and I was one of two representatives selected from our department. This project was to develop models for examining and improving learning across a curriculum. Our department had already made progress in this direction as a result of the requirements for accreditation mandated by the Accreditation Board for Engineering and Technology (ABET). Accreditation as an engineering program requires demonstration of outcomes-based achievement of a number of educational objectives. In this project, we have attempted to examine our outcomes-based assessments and to identify a systematic and targeted approach to how we might examine student learning. The following are some of our thoughts on how best to go about a departmental collaboration on improving student learning.

Motivation is one important feature in getting colleagues to agree to departmental collaboration. What will this do for us? What will this do for our students? The motivation for any such effort is the key to getting faculty to buy into the process. For our department, maintaining accreditation is an obvious motivation. Without accreditation, our students will have trouble getting the jobs they might want. However, for a department without accreditation require-
One of the most obvious motivations is to make sure that all of your graduates are versed in the fundamentals of your field and that no student is able to fall through the cracks. Maybe you think no student should be able to graduate in biology without a solid understanding of phylogenetic trees. Maybe you think no student should be able to graduate in art history without being able to distinguish an impressionist painting from a romantic one. When we focus solely on our own classes, it can be hard to tell if we are covering the same topic in several courses or if we are all assuming another class is covering an important topic. We cannot tell if exposure to a topic in the freshman year is enough for students to still be able to understand and express it in their senior year.

Along with appropriate motivation, a department has to agree on some shared learning goals. Nothing can get our department arguing more than what are the most important concepts our students need to learn. Some believe that engineering theory and mathematics are most important. Others believe that students need to know how to approach real-world problems and build working prototypes. Students should know how to teach themselves and be lifelong learners. Students need to be able to communicate their ideas clearly. Students should know the laws of thermodynamics. We could debate this for hours and occasionally do. Most of our faculty (including myself) believe that the specific area in which we work and the knowledge needed for that area is the most critical. To identify some initial shared goals, I would suggest focusing on those topics that are covered in multiple classes and for which you expect students to show continued progress over the four or so years of their undergraduate degree. For our department, three areas come to mind: communication, ethics, and economics. Our department regularly surveys alumni about what topics we should cover more thoroughly, and without fail they say they wish students had stronger communication skills. Both writing and oral presentation are important elements of engineering work. Other than English 101 and 102, we have no courses that cover such skills, particular in an engineering context. Instead, we have a number of classes with both written and oral projects that attempt to improve those skills. Similarly, engineering ethics and professional responsibility are discussed in a number of courses. Important topics for a practicing engineer, these subjects always compete with the technical topics for time in any course. Finally, understanding the economic factors of engineering work is important and is also covered broadly across several courses. It may be easiest for your department to start with just one topic.

Once your department has identified a topic you wish to study across the curriculum, the next challenge is to develop specific and easily measurable outcomes. Outcomes come in a variety of forms. For our accreditation process, we collect grades in all of our courses, GPAs of the students, entrance exam scores, retention/drop out rates, time to degree, job placement statistics, and student performance on engineering licensing exams. We survey the students as seniors, the students who graduated in the last five years, the mechanical engineering faculty, and employers of our students. Every six years, we save syllabi from every undergraduate course along with representative samples of all classroom assignments and exams (high, medium, and low). Our department collects a great deal of information. Some of this is more useful than others. The average grades in courses are difficult to interpret and so are used generally only to combat grade inflation. The senior surveys give us a good impression of our students’ experiences but sometimes need to be considered in light of students’ lack of experience in the field and perspective. This can be balanced by alumni and employer surveys, but these are often difficult to obtain.

To examine learning across the curriculum, it is important to select outcomes that will give you the information you need but will not be cumbersome to collect. Because we wish to understand student learning, we have recently focused on our senior capstone design projects. These projects require demonstration of a mastery of basic engineering concepts, ability to assess a problem and identify design objectives, ability to create and follow through on a coherent design process, creative thinking, ability to examine economic factors, and written and oral communication. To examine these skills, we are currently developing a standard, rubric-based assessment that can be used across the three capstone
design courses that seniors in mechanical engineering can take. For each of our target categories, we are asking our evaluators to assess the students’ design presentations by matching students’ work to three to five levels of performance. For the capstone projects, these assessments can be completed not only by the instructor of the design course, but also by the alumni advisory board and industrial sponsors who evaluate this work, giving us an important outside perspective of our students. This assessment can also be used in the sophomore and junior level courses to examine progress through the curriculum. The goal of this outcome measure, and any measure you might choose to use, should be to answer the questions you are asking. Also, I cannot overemphasize the importance of making the measures quick and easy to use. Overworked and busy faculty members and outside evaluators do not need a large extra burden, and they will much more easily acquiesce to something that has little impact on their workload.

In order to make this process useful, it is important to consider the process of evaluation of your outcomes. What are you going to do with the information? Again, our accreditation requirements include documentation of a process of evaluation of outcomes and curriculum improvements based on this evaluation. For this purpose, we have a standing outcomes committee within our department. While a standing committee may be more formal than is really required, developing a plan to share the outcome data collected with your department and to discuss how the data might be used is important to make the outcome measures effective. Without such a plan, collecting the data may seem useless. By developing a plan ahead of time, you can be more sure that your outcome measures will answer your learning questions.

In the end, successful department collaboration on student learning requires identifying learning goals that span your department, tapping into what motivates your faculty, developing specific and easily measured outcomes that answer your questions with the least burden on your faculty, and planning a process of evaluation of the outcomes. While I have outlined a more formal process here, similar methodology could be used within small subgroups of faculty teaching courses with similar learning goals. With a bit of focus and planning, this can be a process that is rewarding rather than cumbersome and bureaucratic. Making this process as effective and painless as possible will prevent it from becoming one of the six impossible things we have to do. We might even have time for breakfast at Milliways (or maybe Milton’s).
What competencies do master’s in nursing graduates possess? Do they possess the competencies put forth in their programs of study? What is our quality improvement for the specific programs we teach in? How do we identify the impact of the combined parts (courses) of our programs on the whole (student outcomes)? Just as we strive to make teaching visible in our courses (Bernstein, Burnett, Goodburn, and Savory, 2006), we also want the same in our educational programs.

The Graduate Evaluation Matrix is one component used by the School of Nursing faculty to evaluate our graduate nursing students’ competencies. Asking ourselves what our accomplished graduates look like was initiated as part of an invitation from Provost Lariviere for our academic unit to participate in a project considering goals for our graduate program. The goal was to ask ourselves what academic accomplishments (knowledge, mix of skills, professional preparation, and ability to understand the world through their education) should our graduates complete prior to being awarded a master’s degree in nursing. The challenge for the nursing faculty was to explore what an accomplished student in the graduate nursing major should look like upon program completion.

We will describe our Graduate Evaluation Matrix project as part of our nursing oral examinations. The evaluation we will describe might be considered similar to evaluation of course competencies but instead speaks more broadly to our entire program evaluation. This process causes us to look backward from our program outcomes at the same time we are planning and revising courses, the building blocks of our programs.

Who we are
Our graduate in nursing program offers one nursing master’s degree; however, nursing students have the opportunity to graduate from one of seven different specialty tracks. These tracks are quite diverse, including for example, nurse practitioner, informatics, public health, and administrative nursing tracks. Requirements for the nursing master’s degree include basic core courses, specialty core

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School of Nursing
courses, and advanced courses. While each track prepares students to take designated national competency examinations, there is one set of final objectives, or competencies, for all master's graduates. These terminal objectives/competencies are fairly broad, representing a shared faculty vision and values expressed via these statements. The statements have been longstanding, evolving from faculty group work in the early 1990s as the School of Nursing revised its educational framework.

Our process: What we do
Our history with oral exams: For over ten years we have required all master’s students to complete oral examinations at the conclusion of their program of study. Historically these examinations included students meeting with their three committee members and presenting information that demonstrated they had successfully completed the program terminal objectives. Students prepared for their oral examination by developing a summary PowerPoint presentation and/or portfolio to guide their brief presentation and then responded to faculty questions. Students demonstrated via this process how they successfully mastered or accomplished these terminal objectives. To evaluate the exam, the faculty committee chair would bring a list of the seven program terminal objectives to serve as a reminder of the competencies being sought. Initially, a “pass or no pass” was awarded based on faculty consensus (using a mental model of what individual faculty thought graduates should look like, or the “I know it when I see it” model).

New model: With our Graduate Evaluation Matrix project, we are now trying to further identify the competencies a nurse must possess prior to exiting with a master’s degree. As we progressed in our work, rather than just listing the seven program terminal objectives, the form was expanded to include a rubric or evaluation matrix, with three categories (threshold, good, or advanced performance/understanding) to rate the student’s response to each of the terminal objectives. This Evaluation Matrix, as a type of rubric, makes the examination more objective; it also provides a guide for consistency and continuity as faculty members evaluate students.

Evaluation Matrix was developed and provided to faculty as a one-page grid. The faculty were advised that the examination committee as a whole should use the matrix to evaluate a student at the end of an examination. The student was to be informed that we were piloting a new rating form for the oral examination, so faculty deliberations might take a few minutes longer. After using this Evaluation Matrix for a semester, it was decided that a more specific definition of what was meant by each of the three evaluation categories was needed. These categories (threshold, good, or advanced performance/understanding) were expanded to include criteria to further define these categories (see Table 1 on page 21). The Evaluation Matrix, as a type of rubric, makes the examination more objective; students, faculty, and for our graduate program evaluation. Of particular interest are the diverse ways that students demonstrate their completion of the terminal objectives, added thoughtfulness on the part of faculty as they reflect on students’ products related to terminal objectives, and how this evaluation has potential to inform the overall evaluation of our program.

For our students: Sharing a summary of accomplishments of terminal objectives enhances how students prepare and synthesize the information they gained during their program of study. The PowerPoint presentation that they develop for the exam showcases projects they have completed in different courses in the program as they mastered the various terminal objectives. The PowerPoint provides structure to keep the student centered during
their final examination and builds on their accomplishments. This also serves as a type of debriefing exercise that allows students to ponder, “What did I accomplish and what was the benefit of the knowledge I gained?” Reflection on projects completed in various courses is of key importance in examinations for the students. This provides for the synthesis or melding of courses into a total program.

With the overall examination, students:
- Gain a professional presentation that showcases what they have learned.
- Share experiences and synthesize what they have learned in a variety of courses. Students come to the examination knowing they have gained a wealth of new knowledge, and faculty have the opportunity to affirm this premise.
- Participate in “next step” discussions. For example, as student projects are discussed, faculty members often encourage students to think about submitting a scientific abstract, presenting at a professional meeting, and/or publishing the specified project.
- In most instances, students affirm a very positive connection with faculty at the end of the program.

Table 1. Evaluation Matrix
University of Kansas School of Nursing terminal objectives of the master’s program

<table>
<thead>
<tr>
<th>1. Synthesize advanced knowledge of concepts, theories, principles and research from nursing, liberal arts, and natural and behavioral science as it relates to a specialized area of nursing practice.</th>
<th>2. Apply nursing therapeutics based on nursing standards to meet health care needs of client systems in relation to changes in their internal and external environments.</th>
<th>3. Integrate ethical, legal, economic, and cultural considerations and personal, professional, and client system values in the application of the art and science of nursing.</th>
<th>4. Demonstrate professional values in the role of advanced clinical practice or nursing administration.</th>
<th>5. Collaborate with colleagues in nursing and other disciplines to meet the health needs of client systems in varied health care delivery systems.</th>
<th>6. Generate research questions from theory and practice and evaluate research findings for use in nursing practice.</th>
<th>7. Influence health policy and the delivery of health care that is responsive to societal trends and to changing client system needs by evaluating and proposing alternatives.</th>
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</thead>
<tbody>
<tr>
<td>A. Advanced understanding</td>
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<td></td>
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<tr>
<td>B. Good understanding</td>
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<td></td>
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<tr>
<td>C. Threshold understanding</td>
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</table>

A—Student comments are insightful. Student addresses the specified terminal objective in a way that indicates comprehension of and control over the objective, as well as an understanding of the underlying issue. The message is communicated clearly, concisely, and directly. There is a confidence in this presentation.

B—Student comments meet and, at times, exceed the basic requirement of the specified terminal objective. The presentation indicates that the student is beginning, at times, to think through and deal with major ideas specific to the objective. The message is communicated with generally effective clarity, directness, and conciseness. Some unevenness in communication may be apparent.

C—While the comments offer little insight into the greater issues related to the terminal objective, they meet the basic requirements. The message, for the most part, is reasonably clear, concise, and direct, although there may be unevenness in the presentation.
For Faculty: As faculty members have completed the pilot Evaluation Matrix, some have added written comments about what worked well (or not so well) with the scoring form. Comments have been related to more thoughtful faculty reflection on student outcomes, as well as new discussions about how selected courses and projects seemed to help promote positive student outcomes. Additionally, faculty noted the benefits of considering differences between minimal, moderate, and excellent achievements as allowed with the matrix.

As diverse faculty members come together for the oral examination, they have the opportunity to see and reflect on student progression. This includes a team building component in discussing courses and programs in new ways. Also, faculty members gain knowledge about what students have perceived as useful to them in the program. It is a time efficient method to hear about and gain unique illustrations of students’ learning outcomes. Following are some faculty comments:

• “I can be fairly clear on which students have prepared thoughtfully and which have not.”
• “I teach in the core theory courses, and I like to see how that comes through by the end of the program.”
• “All students come with a surprising synthesis and knowledge of theory, research, and practice connections.”

For the program evaluation: The matrix project helps identify essential types of learning across the program. We have now collected enough Evaluation Matrix forms that we have the potential to complete additional program evaluation. The data may help us identify a particular weakness or ask specific questions that serve to identify where there may be program deficiencies or where certain topics may need more emphasis or a different arrangement in the program of study.

Adding the Evaluation Matrix to our oral examinations has propelled new discussions about our graduate nursing program. Questions are asked such as these: Where should students have received the information that they missed or performed weakly on in their exam? Do we need to focus more on selected concepts in core classes or advanced classes? The Evaluation Matrix documents patterns that may help answer our questions.

Because the examination committees consist of diverse faculty combinations, all faculty members remain informed about core courses and various programs. We have the opportunity to provide feedback to the curriculum committee on issues we see as needing changed; again the Evaluation Matrix documents patterns that may help answer our questions. The tool also helps mentor new faculty in the oral examination process and may even foster institutional memory.

Implementation challenges
As the oral examination process was already in place, the main focus was sharing the tool, the process, and implementing the Graduate Evaluation Matrix. As with any change, getting the word out to faculty, identifying the potential value of the matrix, and helping all get started, were the most cumbersome.

Regarding implementation, the only negative aspect voiced related to taking a few more minutes to complete the examination rather than just saying a student did or did not perform well.

Conclusion
Using the Graduate Evaluation Matrix for the final oral examination provides both students and faculty the opportunity to reflect on successes and ongoing challenges. It combines numerous good assessment qualities such as evaluation compiled from data over time, from multiple perspectives, and involving a synthesis of evaluation data. Students exit our program with a professional summary PowerPoint presentation highlighting their accomplishments. It is a step towards putting into words how our program courses assist in achieving these program outcomes. Adding the Evaluation Matrix to oral exams has resulted in a win-win process for both students and our total program evaluation. The process can help answer questions such as “How do our programs gain additional understanding and develop from the data we gather?” and “How do the programs/curriculum we teach effect our program outcomes and ultimately our graduates?” Moving from a “I know it when I see it” model to one that transparently evaluates students’ learning has benefited both students and faculty members in the School of Nursing.