



A Three-Tiered Approach to Connecting Learning Components

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Every fall I teach cell biology to our Esophomore biochemistry and biology majors and minors, and every fall I am “alone” in my office until after the first exam. Then I have a group of disappointed students who want to go over the exam and continue meeting on a regular basis to review the material so that they are better prepared for future exams. Does this sound familiar?

When I meet with the students, I hear the same story: I studied for hours for this exam; I thought I was prepared; I can tell you everything written on every page of my notes and course packet. Generally, when I ask them a straightforward, regurgitation-style question, they can regurgitate the answer. I point out that this demonstrates their ability to memorize and recall, not their understanding of the material. In this course, they must be able to apply their knowledge in a context other than the one in which it was first encountered.

The principal hurdle hampering students’ learning the material is that they perceive the topics and concepts as discrete and unrelated pieces of information rather than making the connections and relationships between the components and what has been learned previously. This is a typical learning-style difference between novices and experts. I freely admit to my students that making connections and forming relationships is not an easy task initially. It often requires training that involves a change in habits and plenty of practice. To help them, I have developed a three-tiered study method that has been successfully used by students in this course; I think it has broader applications.

The method centers on the use of their notes and a course packet comprised of illustrations that help students visualize the oftentimes intangible course material.

Tier 1: Familiarizing Yourself with the Material

The first tier involves the method that students traditionally take when studying: do the readings, and extensively review the notes that have been taken. I encourage my students to take notes not only in a notebook but whenever possible to annotate their course packet. It is during this stage in the study method that I recommend that students commit their notes to memory in a sense by reviewing them multiple times. The more times they review their notes, the more familiar they will become with the material. A sign of their familiarity will be an ability to “predict” what they are about to read next. It is also an indication that it is time to move on to the second tier in the study method.

Tier 2: Testing Your Knowledge

The second step requires that the students demonstrate their rote knowledge of the material. This is done by taking a quick glance at the first figure on the pages of the course packet that are being studied; the glance should be brief enough to allow recognition of the figure but not to take in any of the annotations on the page. The students should then write out all that they recollect about that figure only. They then check the accuracy and completeness of what they have written against all of their notes for that figure. Noting what was not recalled indicates a gap in knowledge and draws sufficient attention to it to reinforce it for future testing. The students then repeat the process methodically, moving through each of the remaining

figures. This review involves three steps: mental recall, putting the mental knowledge into writing, and visual reinforcement when checking what was written against the students’ notes.

Tier 3: Making the Connections

This step begins by taking a brief look at the first figure and then attempting to verbally “walk” through as much of the material as possible without referring to the notes or course packet. Only when a student is stuck and cannot remember what comes next should the notes or course packet be referred to, and then only to provide a brief hint to trigger the next flow of information. Success at this stage requires that students integrate the course content. It has been my experience that the development of the connections and relationships within the material generally provides the student with a better overall working knowledge of the material, a greater level of self-confidence, and ability to apply the knowledge in new contexts. In other words they have truly learned it. ♥

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- Write with the understanding that your audience includes faculty in a wide variety of disciplines and in a number of different institutional settings; i.e., what you describe must be relevant to a significant proportion of our audience.
- Write directly to the audience, remembering that this is a newsLETTER.
- Keep the article short; generally between 2 and 3 double-spaced pages.
- If you'd like some initial feedback on a topic you're considering, you're welcome to share it electronically with the editor.

The *Teaching Professor* (ISSN 0892-2209) is published monthly, except July and September, by Magna Publications, Inc., 2718 Dryden Drive, Madison, WI 53704. Phone: 608-246-3580 or 800-433-0499. Fax: 608-246-3597. E-mail: custserv@magnapubs.com.

One-year subscription: \$79. Discounts available for multiple subscriptions (please call for price quotes). Periodicals postage paid at Madison, WI. POSTMASTER: send change of address to The Teaching Professor, 2718 Dryden Drive, Madison, WI 53704. Copyright © 2004, Magna Publications, Inc.

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Students as Clients: Exploring the Metaphor Further

We have been around the block and back on the issue of whether students are customers who buy educational products. Among faculty, objections to that metaphor are widespread and deep-seated. Several years ago, we highlighted a piece by Gerald Bailey, that appeared in the *Journal of Management Education* [24 (3), 353-365.] and that proposed we stick with business metaphors but consider students as clients. The same proposition appears in a more recent piece (reference below), and this current article digs new insights from the analogy.

Michael Armstrong looks at the implications of three metaphors in terms of what they might say about how students relate to faculty and the institutions that aspire to educate them: students as customer, as clients, and as junior partners. He thinks the junior partner metaphor aptly describes how graduate students relate to their faculty advisers, and that the student as client metaphor depicts undergraduates.

His piece differentiates the client analogy from the customer one in some interesting ways. "The key difference is that customers rely on their own judgment to evaluate a purchase, whereas clients must rely on the professional to tell them what they need." He illustrates with an example. "I feel competent to choose which groceries to put into my shopping basket, but I rely on my lawyer to tell me the best clauses to put into a contract." (p. 372)

Customers are always right, and that orientation fits the purchase of educational products poorly. Armstrong proposes that clients can always be right about their symptoms or wants but wrong about their underlying needs. Students may always want A's without or with less work, but professors have a responsibility to fairly represent what it takes to learn.

Customers expect guarantees, and those are difficult to offer with educational products. But clients have the right to expect professional services that meet des-

igned standards. Lawyers don't write contracts and then guarantee that the holder will never be sued. But if a lawyer has written up the contract, the client has the right to expect that it has been prepared so as to make lawsuits less likely. And students have the right to expect course work and learning experiences that adequately and appropriately prepare them for careers.

Customers are free to mistreat sales reps. But there is a different expectation for clients. "Do I really want to annoy the physician who is about to prescribe a powerful medication for me?" (p. 373) Sometimes students do act rudely and with a certain immaturity, but generally they understand that professors also hand out potent medicine and treat them with appropriate respect.

Finally, Armstrong proposes that this metaphor allows faculty, departments, schools, or colleges to tell students that certain issues are a matter of professional judgment. Student customers may lobby to have the hard statistics course deleted from the curriculum, but when they are clients, the professional judgment response rests on future needs, ones not yet experienced by the client. It allows the faculty member to say to the students, "This content is essential. Trust me."

"The real value for any analogy is in the insights it suggests." (p. 373) And this comparison of the customer and client metaphors helps us define relationships between students and faculty, and students and educational institutions more productively. College educators do serve a clientele, but it makes sense to think of them as clients, not customers.

Reference: Armstrong, M. J. (2003). Students as clients: A professional services model for business education. *Academy of Management Learning and Education*, 2 (4), 371-374. 🍏

Confronting Failure Constructively

How often do we take a long, hard look at an instructional failure and come away with a reasonable set of conclusions? I think we look long and hard all right, but we do so from such a place of emotional distress that we do not leave stronger and better teachers. More often we emerge scarred; sometimes we feel victimized, and other times we just hope to goodness we never find ourselves in that place again.

We all know that, in theory, great pain can lead to great learning, but only if we deal with our instructional failures constructively, and most of the time, we don't. Sometimes we talk only to ourselves about them, or we share them with only the most trusted of colleagues. Most of us do not write or otherwise think systematically about what happens, and the thought of publishing one of these bad teaching adventures would strike a lot of us as just short of insanity.

I keep my eyes open for reports of teaching failures because I very much admire faculty who try to figure out what happened in an objective and reasoned way. We (editor included) need more models of how to go about doing that. And I think it's heroic to share those discoveries with the rest of the pedagogical world, although given how many folks regularly read the pedagogical literature, that is a comparatively small world.

In a recent issue of the *Journal of Management Education*, Terry Noel describes a teaching "disaster" and then tries to explain why it happened. It's a wonderful piece. The emotional anguish that accompanies teaching gone awry is all there but so is the reasoned quest to make sense of what happened, and best of all, there are significant lessons learned.

The course in question was a seven-week organizational design course for seniors in a management program. Noel had never taught the module before. In fact it was Noel's first year teaching. And there were some warning signs: "the subject was not my bailiwick," (p.189) and the

course wasn't popular with either students or faculty. But like many new faculty, Noel was undaunted and motivated.

With the enthusiasm so characteristic of new faculty, Noel aspired to teach the course innovatively and creatively, and to provide students with a different kind of learning experience. To accomplish that, students were placed in teams (more than one) and given the task of designing "the optimal organizational design class." (p.191) Noel identifies three assumptions made at this planning stage that this time turned out to be wrong. "I assumed that once I explained how important this was, [students] would embrace my ideas for a new, and hopefully fun, learning environment." (p. 191) Noel also assumed that bright, capable students would be able to accomplish the kind of introspection and analysis the project demanded. "Third, I assumed that I was capable of pulling this off. I had never been afraid to try new things in the classroom, though I had never done anything quite this radical." (p. 191)

In addition to this creative, self-exploratory design, students would use technology to support their efforts; they would participate in online discussions, and they would post their work on a cluster of websites. Noel writes, "Although I had some apprehensions about my own lack of experience with Web sites and discussion threads, I reasoned that this was a critical part of the lesson I was trying to teach. No one really understood yet how this information technology explosion was going to affect the classroom or the firm." (p. 192)

Noel follows with a detailed account of what happened, most of it not pretty. Students were frustrated; they couldn't figure out what they were supposed to do. They took to complaining, and Noel's explanations did little to resolve the discontent or get most teams to the point where they were doing quality work. Final presentations, which Noel describes as "boring and lifeless," confirmed what student evaluations of the course only veri-

fied. "My organizational design students thought the course was rotten." (p.261)

Rather than wallow in the failure, Noel tries to figure out what happened and why. "I was looking for two new things from my students. First, I wanted them to reflect on themselves as an organization. Second, I wanted them to take responsibility for learning when questions arose instead of looking to me for answers. Neither of those things happened. They simply could not, or would not, embrace a more self-directed approach to learning." (p. 210)

And why weren't students able to accomplish those two objectives? "The fatal flaw in my class was the assumption that my students knew how to construct knowledge from those experiences. They did not. The classroom experiences I intended to be fodder for thought were essentially meaningless to them. They had no idea how to take them and discern how they might inform their future managerial decisions." (p. 203)

The analysis offered here isn't just about what the students didn't do. For Noel, there was an important lesson: "I did not know what I wanted them to learn. I knew why I wanted them to learn The 'what' part was more elusive." (p. 204)

The value of this fine article is not the experience or lessons drawn from it but rests in what it teaches us about the value of failure. We all aspire to never fail, but we all have or will. Until we are able to step back and insightfully analyze what happened and why, we cannot expect to grow significantly as teachers. When will we recognize the power of failure to teach us individually and collectively?

Reference: Noel, T. W. (2004). Lessons from the learning classroom. *Journal of Management Education*, 28 (2), 188-206.

12 Commandments for PowerPoint

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PowerPoint has become a major tool used to disseminate information in classrooms. Yet many faculty and students often use PowerPoint in ways that distract and confuse viewers. To help, we've assembled 12 commandments for using PowerPoint effectively.

1. **Thou shalt not put War and Peace on a slide.** Too much text on a slide makes it difficult for a learner to both see and process information. The solutions are easy. Use more slides or outline only major ideas on each slide and then verbally add details.
2. **Thou shalt not use fonts smaller than 28-point.** Do you need bifocals to read slides on a huge projection screen? Why make the learner squint? Not only is that irritating, but it can cause eye fatigue, and viewers miss important information.
3. **Thou shalt not use busy backgrounds or ineffective colors.** Don't make your learner need sunglasses. If a background has too much going on, it competes with the information. Also, poor color choices make slides difficult to read. When broadcasting PowerPoint slides over a two-way video system, yellow is a very difficult color on the viewer's eyes. Consider using aesthetically pleasing color choices with good color contrast. And bear in mind that dark slides in a darkened room in a class after lunch may be just a little too soothing.
4. **Thou shalt not complicate slides with too many figures and tables.** The whole purpose of showing a figure or table is lost when a learner must focus on trying to make sense of all the numeric information. Use a hand-
- out instead, or refer to a page number or a website where the information can be perused at leisure. If a large table needs to be part of a presentation, break it into chunks on several slides and focus on one aspect of it at a time.
5. **Thou shalt use animation, audio, and pictures in moderation.** While animations work well for the Cartoon Network, you don't want your audience to focus on the bombs bursting in air and flags waving. Remember, the goal is to transmit information, not lose your message in the glitz. Pictures and audio can help break up the monotony of written words, but use them to enhance your message, instead of letting them become the message.
6. **Thou shalt acknowledge all references used.** Thou shall not tell a lie or steal someone else's thunder. The same rules of evidence apply with PowerPoint. When you use a quote, table, figure, or summarize someone else's work, cite the source.
7. **Thou shalt surely back up thy presentation.** Save and save often is not just good advice, it should be the law. Remember, it is not "if" technology will fail, it is when; and you must be prepared.
8. **Thou shalt not read the slides word for word.** If all the learner needed to do was read the slide, you would be unemployed. Use the slides as guides for a presentation. Also, don't take the slides right out of the book. Use the slides not only to zero in on important book topics, but to add more material.
9. **Thou shalt not use slides alone.** One or more hours of nothing but talk and PowerPoint slides would bore anyone. Use interactive exercises to address other learning styles. Remember, the mind can only absorb what the butt can endure.
10. **Thou shalt practice.** Don't go in cold and fumble. PowerPoint is only a tool — one you need to use with poise and confidence.
11. **Thou shalt be mindful of learners' limitations.** You are only as powerful as your weakest link, which is usually your learner's technical ability. Remember, many learners will end up printing your notes in black and white. If you have busy backgrounds, lots of color, or poor color choices, your presentation may print but be illegible to the learner. Black and white is preferable for printing purposes. Also, lots of pictures and a large file size may hinder the reader when downloading off the internet. You will want to "plain" it down to reduce file size and make the presentation more easily legible for printing on the home computer. "Dress" it up for presentation in the classroom arena.
12. **Thou shalt allow the listener time to process the slides.** While fast talking makes great commercials, it does not make for effective instruction. Don't put up a slide and then skip over it — that's very confusing. Always allow time for questions, and encourage your learners to ask them. Be sure to determine if your learners understand the concepts you are presenting before moving on. 🍓

An Internship for the Professor

By Thomas J. Gerstenberger
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Reflecting on my career as a teaching psychologist, I realized I was missing something. Trained as an experimentalist and employed academically to teach courses in the experimental areas of psychology, I would occasionally teach introduction to psychology. However, I would always feel much more comfortable teaching the part of the course that tended to be experimental in content in contrast to the portion that was more applied. Also, as an academic adviser, I would often find that I wasn't able to offer a thorough depiction of what students could expect when employed after graduation in areas of psychology dealing with humans in therapeutic scenarios.

In response to a major initiative to increase student internship opportunities from the president of my college, I applied for a sabbatical leave to partake in my own "informal internship." My internship was planned to be less like a clinician's training and more like what an undergraduate

would experience in an internship. I would shadow professionals and learn by observation rather than doing. In this manner I would gain direct knowledge of the material I was teaching and foster relationships leading to internships for my students.

I "interned" at an adolescent drug and alcohol in-patient rehabilitation facility, an adult in-patient chemical dependency rehabilitation unit, an acute psychiatric in-patient unit, and finally a large in-patient institution serving a mentally retarded population in a secure setting. Most commonly I attended group-therapy sessions, which was the major psychological treatment component of all four institutions. I collected and wrote psychosocial histories on patients, assessed mental capabilities, contributed to treatment team meetings, attended a court hearing, and reviewed client files.

My internship experiences have become a permanent part of my working knowledge. Seeing clients work through issues, and gaining a better understanding of client histories both via files and direct communication has been very enlightening. My next goal is to bring these experi-

ences to life in my teaching. Using examples from my "internship" in the classroom will hopefully bring a new level of excitement and reality to my students.

Finally, I made meaningful connections at each institution. Meeting professionals in these environments will foster my ability to more appropriately place future student interns. I will now be more comfortable referring a student intern to any of these facilities because I now know the professionals who work in each and the type of work they do. I now have a better understanding of the types of activities that student interns will be involved in and what will be expected from them. This experience will foster my ability to be a faculty sponsor for student internships.

In the current climate of "active learning" I am very fortunate to have been given this opportunity to go beyond textbooks and acquire a better understanding of our colleagues in the applied psychology settings. I highly recommend this or a similar experience for any teaching professor lacking work experience outside of the academy. It was both informative and humbling.

Learning Portfolios Encourage Deeper Learning

How do we get students better connected to and with their learning when all they seem to care about are their grades? How do we focus on learning and cover the content?

One answer is to design new or redesign old assignments so that they encourage students to think about learning. That goal is not easy. It requires "the deliberate and systematic attention not only to skills development but also to a student's self-reflective, metacognitive appraisal of how and, more importantly, why learning has occurred." (p. 4)

Moreover, more and richer learning occurs "if the student is encouraged to come to terms self-consciously over the duration of an academic endeavor." (p. 4)

One mechanism that has proved effective at accomplishing these lofty learning objectives is the learning portfolio. Those documents take many different shapes and have also been defined variously. This simple, straightforward definition is from a source cited in the book referenced at the end of this article. "A portfolio can be defined as a multidimensional, documented collection [of a] student's work put together in an organized way and including a reflective discussion of the materials contained in the portfolio." (p. 15)

As John Zubbizarreta ably illustrates in his book "The Learning Portfolio," learning portfolios are enormously versatile and can be used for many purposes:

- **Improvement** — Explored with themes

that focus on development, reflective inquiry, goals or philosophy of learning and evidenced by journal entries, online threaded discussions, e-mails, classroom assessments, or research notes.

- **Writing** — Explored with themes that focus on voice, creativity, diverse and flexible skills and evidenced by drafts, journal entries, papers, concept maps, outlines.
- **Problem Solving** — Explored with themes that focus on critical thinking, application of knowledge, flexibility, curiosity and evidenced by problem-solving logs, lab reports, computer programs, spreadsheet data analysis.

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Building on 'First Word' Activity

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As part of my continuing efforts to improve the quality of my teaching, I used a technique described by Barbara A. Mezeske in the October 2003 issue of *The Teaching Professor*. This activity (titled, "Students Get the First Word") requires students to make a three- to five-minute presentation at the very beginning of class on something relevant to the course. I followed the four key steps she outlined for the activity when I used it with individual students: (1) assignments are required but not graded; (2) students are assigned specific concepts at the beginning of the course; (3) creativity is encouraged; and (4) everyone applauds each presenter.

Like Mezeske, I have found that this technique works well.

Because my courses are team-based and application-oriented, I added a team component to the First Word Assignment the first time I used it, and I decided to grade this assignment, using the following assessment criteria: (1) all members should participate and practice together to develop synergy; (2) presentations should run about 10-15 minutes; (3) technology requirements include PowerPoint at mini-

mum, and to facilitate creativity I strongly recommended additional technology (loosely defined as video, DVD, audio, role play or other demonstration, etc.); (4) teams need to begin by explaining how their topic relates to the text, and then they need to go beyond the text and present additional information; and (5) to be eligible for the maximum grade on the Team First Word, all members need to have presented their Individual First Words previously.

When I assigned topics to the teams, I made sure the topics were mentioned only briefly in the text, if they appeared there at all. By transcending the text, students continue to learn through their research and discovery of new ideas.

I was very pleased with the results for several reasons. There was 100 percent participation; all students had previously presented their Individual First Word. All teams went beyond the PowerPoint technology requirement; they incorporated skits and brief video clips from popular movies and related them to concepts from the course. Each team's topic was well researched and presented in a way that held the class' attention. About half of the teams met the time requirement, and the remaining teams were two minutes short of the 10-minute minimum. All grades

were 90 percent and higher.

But I think both the individual and teams versions of this activity can be even better. Next time, rather than randomly assigning Individual First Word topics from the book during the first week of class, I will first have students sign up for a specific date. I will then assign topics that correspond to the chapter(s) we are studying at the time.

For example, when we are studying Chapter 2, I will ensure that students presenting their Individual First Word on those days have concepts related to Chapter 2. Feedback from students indicated that doing so would help reinforce their understanding of the material. Students have also requested that I assign points for their Individual First Word, but I am not yet convinced that both ways I'm using the First Word assignment need to be graded. For Team First Word, I plan to ask students to share the sources they consulted in their presentations, as this will make the entire class aware of discipline-related resources that are available.

The Individual First Words provide a welcome opening to every class period. The Team First Words at the end of the semester offer a very refreshing class period that is informative and entertaining. 🍀

PORTFOLIOS FROM PAGE 5

- **Field Experiences** — Explored with themes that focus on the application of knowledge, trained skills, adaptability and evidenced by field journals, logs, reports, video/audio tapes, photos, grant proposals.

In my course this semester, I had students do five short papers related to small-group communication skills. Students began with a paper that assessed their skills and followed with three papers that described and evaluated different small-group assignments. In the final paper, they

looked back to the beginning with an eye to describing just how they thought their skills had changed, and they looked to the future — where they expected to be professionally, what small group skills they thought they might need, and how they planned to take the skills they have now to this new place. I am delighting in the papers — they are thoughtful, careful, and often insightful analyses that sometimes even demonstrate that students have not only mastered course content, they can apply it. I believe that making these papers part of a collection, a portfolio, helped students see what they had learned across the course.

My experience confirms what is repeated in many of the examples contained in this book. Portfolio preparation encourages student to focus on learning in new and deeper ways.

Reference: Zubizarreta, J. *The Learning Portfolio: Reflective Practice for Improving Student Learning*. Bolton, Mass.: Anker Publishing, 2004. The book may be ordered online at www.ankerpub.com 🍀

Presentation Software: Does the Course Make a Difference?

As experience with and use of technology to support instruction grows, more specific questions about its effects on student performance can be asked, and those answers can increase its impact still further.

Karl Kunkel (reference below) observes that up to this point much of the research exploring the impact of various kinds of computer-aided instruction have compared effects with traditional methods across multiple sections of the same course. He thinks that's a problem and explains why: "Instructors should recognize that different types of courses exist in a sociology [his field] curriculum and that therefore we need to ponder the types of pedagogical approaches that work best in particular types of courses." (p. 189)

To explore that issue, Kunkel looked at the impact of PowerPoint presentations in two different kinds of lecture courses: a substantive, descriptive course that required a lot of memorization and a theory-based course that asked students to apply abstract material to concrete examples. His study involved multiple sections of each of the two kinds of courses and compared sections in which the lecture material was supported by PowerPoint presentations and traditional sections in which he lectured only. What remained

constant in this study was the daily use of PowerPoint to accompany the material he presented in class. The PowerPoint slides were made available to students before each class period so they could bring them to class and use them to assist their note taking. "This process allows for more listening and less frantic note taking because students are able to have the main outline of important points in front of them during class discussion." (p. 191)

His objective was not to provide all the material on slides so students could skip class but "to help students organize material in a lecture-based course, allowing for better exam preparation." (p. 191)

When he compared final grades across sections of the theory course in which he used presentation software with sections of the same course taught without the presentation software, there were no significant differences. However, when he made the same comparison across sections of the substantive, descriptive course there was a significant difference, and it favored those sections with the PowerPoint presentations. Students' final grades in those sections were higher and the difference was statistically significant.

Kunkel's explanation of these results leads to larger issues and questions. Writing first about the theory course, he

says, "A lecture-oriented pedagogical approach might not be best for theory, regardless of the presence or absence of software. It could be that many students require a more active learning environment in order to understand and apply abstract theoretical concepts." (p. 193)

As for why he thinks differences were significant in the descriptive course, he concludes, "Possibly this grounded, substantive, and mostly descriptive material [the course provides an overview of how the criminal court system works] is better understood when provided to students before class and then presented during class in a visual and organized slide-show presentation...." (p. 194)

These findings are specific and may not be applicable in other fields with different students and other kinds of courses, but the questions this study explored are. They should be asked by all instructors who use PowerPoint and other technology supports. Do they make a difference in student performance? Are they having a positive impact on learning?

Reference: Kunkel, K. R. (2004). A research note assessing the benefit of presentation software in two different lecture courses. *Teaching Sociology*, 32 (April), 188-196. 🍀

Deciding on Which Active Learning Activities to Use

Not all faculty use active learning (although most all claim to be in favor, at least in principle) and many more use only a bit (despite widespread acknowledgement that it facilitates learning). So why aren't faculty doing more? There are many reasons. There's still the content coverage issue and the fact that when students are "doing" the content, it isn't getting covered as expertly and efficiently as when the professor does it. There's some just good, old-fashioned resistance to change. And then there's the lingering fear that at their heart active

learning activities are more about entertainment than real substantive learning experiences.

Louise Smith and Doris Van Doren (reference below) propose what they call a "reality-based learning method" — criteria faculty can use to select and assess active learning activities.

Here are the criteria that comprise their reality-based learning methods and some of the diagnostic questions they propose faculty use to assess active learning activities. The questions are framed in the past tense so they can be used after an activity

has been tried, but they could easily be phrased in the future tense and be used to select activities for inclusion in the course.

Student Learning — The professor ensures the purpose of each activity is student learning. What specific knowledge, skill, and attitudes did this activity foster? To what extent did it build on current levels of student competence? What were students able to do after completion that they could not do before?

Co-responsibility — The professor

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Covering Content and Teaching Thinking

Many of us have pointed out in writing and exchanges with colleagues that we've got too much to teach, but more often than not, it's seen as one of those inevitable ills, something like giving grades, that we just to learn to accept. The problem is that we may soon reach the point of no return; there's only more to add, little that can be taken out, and course lengths that remain unchanged.

A qualitative study recently published in the *Journal of Nursing Education* challenges many of the assumptions we make about content. It begins with a statement of the problem, and although the context is nursing, it is not a problem relevant only to that field. "The dilemma nurse educators are increasingly facing is not what to include in a course but what to leave out. These decisions are difficult because complex care environments and increasing patient acuity demand that nurses be more knowledgeable, adept at processing and using information and capable of 'higher-level thinking and reasoning.'" (p. 5)

The study's author points out how comfortable nurse educators (and the rest of us) are with conventional pedagogies that emphasize the selection, sequencing, and transmitting of material we know, love, and consider important. Even the journal's editor, writing about this article in an editorial candidly observes, "I feel compelled to cover content that I have determined is essential. And, secretly, I like

to lecture. I like to show students the content I have mastered and put together in a way that is meaningful to me As a teacher, I find it so much simpler to just give it to them, in a lecture or a reading, and then give them an exercise to apply it. But I know, in my heart of hearts, that more is needed — just to achieve understanding and to make this meaningful for the students' own practice." (p.3)

Out of these concerns about content emerged this research question: "What is the relationship between content knowledge and thinking?" The study used a qualitative methodology, Heideggerian hermeneutics, to explore via case study analyses this relationship. Much of the article is devoted to one case, seen in this methodology as a kind of super example. It's an account of a faculty member who implemented a new pedagogy and how that experience of change influenced her thinking about content and teaching students to think.

Qualitative research is now appearing more frequently in many of the pedagogical periodicals as it gains a stronger foothold in the disciplines. For faculty raised on quantitative, empirical analysis, its methodologies are new and unfamiliar. Their analysis is deeper and more interpretive. But for questions like this one, where the answers are complex and not absolute, they are a perfect fit. This analysis of a single experience illustrates the

level of understanding they can produce.

As for findings, in the case of qualitative research, it is more often about interpretation and implication. And with the case of content and thinking, the author describes them this way: "This study reveals how the pervasive focus on what should be taught in schools of nursing creates places for teachers to rethink how they teach and the ways in which pedagogy being enacted influences students' thinking. Perhaps the limits of conventional pedagogy have been reached in nursing education. Although teaching content knowledge is necessary, has the common emphasis on covering content overtaken the time to also teach the thinking practices required for students to provide care within multifaceted and complex health care systems? Has the near-exclusive use of conventional pedagogy created additive curricula that are making teaching thinking challenging, at best, or impossible, at worst?" (p.11) These are questions about the relationship between content and thinking that we should be asking in every discipline.

Reference: Ironside, P. M. (2004). "Covering content" and teaching thinking: Deconstructing the additive curriculum. *Journal of Nursing Education*, 43 (1), 5-12. ♥

LEARNING ACTIVITIES

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ensures the student is responsible for learning in each activity. Have students participated actively rather than passively with this content? Have students appeared to see the value of the concept or content? Have students tried to incorporate the concept into their daily behaviors?

Enlarging Student Experience — The professor ensures that each activity draws on knowledge and skills beyond the

classroom and discipline. Has the student applied this concept outside of class? Has the student reflected on the use of this concept in personal or professional life? Have students been able to cite a situation in their immediate future in which the concept might be useful?

Transferability of Experience — The professor ensures transferability of learning from the activity to outside the classroom. Has the professor discussed the concept being focused on in the activity with professionals so as to ensure its

importance and relevance in the workplace? For students currently employed, does the concept have impact and relevance now?

Reference: Smith, L. W., and Van Doren, D. C. (2004). The reality-based learning method: A simple method for keeping teaching activities relevant and effective. *Journal of Marketing Education*, 26, (1), 66-74. ♥