Of Sidewalks and Learning

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There is a sidewalk that cuts diagonally northeast from Northwood Hall toward the Student Center. That sidewalk did not exist when I arrived at Geneva College in August 2003. In its place was a well-worn path pressed down by a host of sneakers and sandals from students who had long ago figured out the shortest distance between the two buildings.

Shortly after my arrival, the brown path disappeared, replaced by a concrete sidewalk. The change did not affect the ambulatory habits of most students—it had been their path long before it became a sidewalk. As a new faculty member, not sure of the rules, I welcomed the new sidewalk. I, too, could now efficiently traverse between buildings without feeling guilty about not being on an “official” path.

I’ve since learned that Geneva is not a real stickler when it comes to rules like “Don’t walk on the grass.” For me, that’s a good thing, since the new sidewalk would most likely never have been created had the students been subject to such a rule. I’ve also observed that in other areas, not involving sidewalks, students will see a need and respond in a way that makes sense to them. Many times (not always) the college will then apply resources to that need in a way that benefits both students and the institution.

In my view, this chain of events does not lead to anarchy but touches on a principle that has held sway for decades in the world of business—satisfying your customer/client/student/whatever is a smart move for both the customer and you.

I know the concept of “student as customer” is anathema to many. I understand and agree that changing something in the classroom just to improve “student feedback” rather than to improve “student learning” is consumerism for the wrong reason. But competitive realities and the changing contexts within which higher education now operates should cause us to consider (or reconsider) this customer analogy.

For example, am I at Geneva College just to teach, or am I here to ensure that my students learn? If the answer is “just to teach,” then I don’t need to concern myself too much with the learning needs of my

Fill-in-the-Blank Lecture Notes: Advantages

By David DiBattista, Brock University, Ontario, Canada
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In his 2004 article (The Teaching Professor, 18[10]), “Online Lecture Notes Can Aid Student Learning,” Ryan Zerr points out the need to strike a balance between providing too little and too much information in the lecture notes supplied to students. With too little information, the notes are of little value, while with too much information, it is difficult for the instructor to ask leading questions and generate discussion. Here I call attention to an approach that provides partial rather than complete notes, thus making it easier to achieve a proper balance.

I call the partial notes that I give to my students “fill-in-the-blank” notes (FITBNs). These notes are extensive and detailed, but they have numerous blank spaces in which students must write key information that is provided during lectures. Until the blanks are filled in, the notes make little or no sense. To illustrate how this works, I will use an example from one of my psychology course lectures. The first slide in a given series is identical to what the students have in their lecture notes, and successive slides in the series provide them with the missing information that they must write in the blank spaces. For example, students might have the following incomplete sentence in their notes:

In an interval scale of measurement, numbers ____________, with equal numerical intervals reflecting ____________ in magnitude.
Student Observations of Teachers: A Caveat

Virtually all instructional rating systems rely on student observations. And the literally hundreds of studies that verify both the reliability and validity of student observations legitimize this practice.

But every now and then a study raises questions about the viability of this approach. The study referenced below is one such example. Students observed and evaluated one aspect of teacher performance: nonverbal immediacy. Many studies of this aspect of teaching have been conducted in the communications field. This includes a range of nonverbal behaviors such as facial expressions, informal interactions with students, smiles, nods of encouragement when students speak, gestures, direct eye contact and movement in the classroom space. Research has documented that teachers who demonstrate behaviors associated with nonverbal immediacy are more highly evaluated than teachers who do not. Some research links nonverbal immediacy with learning outcomes. The premise is that these teaching behaviors positively impact the climate for learning and motivate student engagement in the process.

Within the communication field are several widely used instruments that measure a variety of nonverbal behaviors associated with nonverbal immediacy. Some research links these behaviors to students' abilities to observe and evaluate them. Extensive research verifies those abilities, and isolated studies must always be considered in light of the weight of evidence. But when empirically solid studies generate results at odds with other findings, we consider the reliability and validity of these findings. Researchers in this study developed and tested a new version of one of these instruments.

In this study, students in 29 sections of an introductory public speaking course evaluated the nonverbal immediacy of their instructor. Researchers then combined these individual assessments into an average score for each section. These scores were compared with those given by two trained coders who repeatedly observed a 15-minute videotaped sample of each instructor, coding one of seven different behaviors each time they looked at the tape. Researchers found nonsignificant correlations between class average scores and those of the coders. “These results suggest little correspondence among students’ perceptions of teacher immediacy and the actual behaviors a teacher displays.” (p. 176)

The study sample was small, and the authors were appropriately cautious about their findings. “Nonetheless, the data in this study indicate that researchers may not be justified in making claims about teacher immediacy based on student perceptions. The results of this study give pause to consider whether these student reports provide more information about the student than about the teacher and thereby call into question the validity of drawing conclusions about actual teacher behavior based on student reports.” (p. 177)

Of course, the larger implications relate to students’ abilities to observe and evaluate other kinds of teacher behavior as well. Extensive research verifies those abilities, and isolated studies must always be considered in light of the weight of evidence. But when empirically solid studies generate results at odds with other findings, we should remember that all student assessments are perceptual; students are not trained observers. This is why student evaluations should be taken seriously but never believed absolutely. It is why researchers regularly recommend that instructors view such evaluations as one, but not the only, measure of teaching effectiveness.

The Wizard of Oz: A Metaphor for Teaching Excellence

By Donna Bowles, Indiana University Southeast, Indiana dbowles@ius.edu

W hen reflecting on my experiences as a college professor, several themes from The Wizard of Oz often surface. This well-known story provides a metaphorical view of behaviors that I strive to achieve in my ongoing work with students. In the familiar foursome’s journey to the Emerald City, I see characteristics necessary for teaching excellence—the need to improve, fine-tune and revamp as we travel with students through courses and curricula. Like Dorothy, the Cowardly Lion, the Scarecrow and the Tin Man, successful teachers must have courage, passion and brains.

Courage is needed to

- say “I don’t know” to a student’s question, followed by “but I’ll find out”;
- maintain one’s academic standards despite students’ objections;
- trust one’s “gut” feelings and intuitive perceptions involving students;
- try new teaching strategies and obtain feedback to assess their effectiveness;
- disagree with colleagues on curricula/program development issues;
- approach student evaluations of teaching performance with humbleness rather than vulnerability; and
- avoid burnout and the temptation to become cynical, by maintaining commitment to one’s vocation.

Passion is needed to

- care for yourself (physically, mentally, and spiritually) in order to care for students;
- put forth the effort to know each student’s name and special learning needs;
- provide prompt feedback for student performance along with critical encouragement;
- recommend personal counseling to a student overwhelmed by life’s many stressors;
- share successes/failures with colleagues and learn from their stories as well;
- instill a sense of hope for academically challenged students; and
- be available to students other than “by appointment” or to discuss grades.

Brains are needed to

- seek out a teaching mentor early in one’s career and to become one later;
- recognize that most instructors feel like imposters from time to time;
- balance one’s academic life with a meaningful life off campus;
- approach student evaluations of teaching performance with critical encouragement; and
- recommend personal counseling to a student overwhelmed by life’s many stressors.

Virtual Teams with Fluid Membership

H ere’s an interesting model for group work: form the groups in a large class; give members the option of working face-to-face, by phone or online; and change the membership across the life of the group. Brian Dineen opted for this model in his upper-division organizational behavior course because he felt it closely replicated conditions now common in professional contexts. Employees work with others in a virtual environment, and frequently, as tasks evolve, membership in working groups changes.

In the article (reference below), Dineen provides complete logistical details for the assignment, including the following important elements that were used: groups were made up of three to five members; for each of eight weeks they analyzed short cases relevant to course material and answered two questions related to the case; and group work, which counted for one-fourth of their grade, included a peer evaluation component. Even though students had the option of meeting face-to-face or by phone, 70 percent reported that they completed the entire exercise without ever meeting face-to-face. Instead, they used private bulletin boards that the instructor set up for them within WebCT.

For comparative purposes, Dineen kept membership in half of the 26 groups stable. Those students worked together from start to finish on the project. In the other groups, Dineen changed group membership weekly; in the second week, groups gained and lost one member, and in the third and fourth weeks they gained and lost two members. Students did not know how long they would be in the group. They simply received an e-mail announcing that they had been reassigned to another group. They could no longer access their previous group’s bulletin board and were given access to a new one.

Dineen looked at the impact of this group work design across a number of different variables. He collected data from students before the experience, on weekly surveys and on the anonymous end-of-course evaluation. From the data gathered, Dineen discovered that most of those who responded to the surveys did not have previous group experience in a virtual environment. The inexperienced group reported significantly higher degrees of learning outcomes and confidence than those who had worked in virtual groups before.

Among a number of interesting findings, Dineen learned that social loafing, where team members rely on other group members to do the work for them, was less of an issue on the teams with fluid membership. He explains this finding by citing other research documenting that when groups contain strangers, team members tend to be on their best behavior because...
The Circle of Scholarship

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My title comes from the Lion King’s theme song and represents how my scholarship has proceeded since I’ve been at Rochester Institute of Technology (RIT). I came to RIT five years ago, after 23 years in industry. Initially I was bothered by the idea of doing scholarship, because I came here to teach. I love teaching and the satisfaction that comes with providing students lifelong learning skills. I love watching their eyes light up when they finally “get it.” So the thought of using teaching time to do scholarship and research seemed all wrong.

But my views have changed. Several years ago I was asked to create two Java programming courses, targeting the underprepared students in the IT department. One of my colleagues suggested that I consult the scholarly literature before designing these courses in order to see how others have developed similar courses and to learn from their successes and failures. Since I came from industry and had never received any formal teacher training, I did not realize that a whole body of scholarly knowledge on education even existed. I took her advice and started on my quest to learn how to design and teach the courses in the most effective way. I was motivated by the fact that these students had already received low grades in their first programming course and so were at a high risk of failure.

During my search I discovered constructivism, active learning, student-centered learning, and cooperative learning. Almost without thinking, I started doing research because it focused on improving the educational experience of my students. Cooperative learning resonated with me, and I decided to use this technique in my classroom. Unfortunately, there were very few examples in the literature that specifically targeted computer programming, so I was forced to develop my own materials.

These courses turned out to be highly successful at improving student retention, grades, and satisfaction.

This success inspired me to write about my experience and present my results at conferences. Since I was writing about what excited me, it didn’t seem like extra work.

The first circle was now complete:

Research ➤ Classroom experiment ➤ Reporting of results

This early work led to my acceptance in RIT’s Faculty Learning Community. All members of this group attend the Lilly Conference and perform a classroom experiment. The Lilly Conference is one of the leading conferences for teaching and learning, featuring some of the major educational researchers in the world. At that conference I was introduced to various teaching techniques and cognitive studies. For my classroom experiment I used a technique to enhance student participation during lectures, an idea inspired by the conference. Following the successful classroom experiment, I presented a paper that detailed the cooperative learning techniques that I used in my courses, which completed the second circle:

Research ➤ Classroom experiment ➤ Reporting of results

At this conference (the Consortium for Computing Sciences in Colleges—Northeastern Region), I met the National Science Foundation (NSF) director of undergraduate education. He was excited about my work. We met for several hours, during which time we shaped my ideas into a grant proposal. I am happy to report that NSF has recently funded that proposal, and so the circle continues…

Despite my initial reluctance to embrace scholarship, it turns out that scholarship has embraced me. I would have to say that ultimately it is my students who have benefited the most. I no longer see this kind of scholarship as time taken away from teaching but now view it as time necessary to maximize the learning potential of my classroom.

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**Wizard of Oz**

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- focus on diversity in students’ learning styles rather than on students’ intellect/personalities;
- read or seek information about teaching at every opportunity;
- laugh, have fun, and enjoy students; and
- learn from past mistakes when developing and implementing future courses.

Of the foursome, I think Dorothy has those character attributes most admirable in professors. She’s adventuresome, keeps an open mind, perseveres even in difficult circumstances and networks with great aplomb. Her sense of hope helps others in troubled times. Perhaps most intriguing, she has power, albeit unknown to her until the end of the tale.

College professors have power not unlike Dorothy’s—although we don’t always recognize or use our abilities to establish conditions and opportunities for students to learn, to help facilitate students’ ability to think, or to instill confidence and pride in students where none previously existed.

I don’t think it matters if you teach in a lecture hall, a seminar room, a lab, a practicum setting or an electronic classroom. All teachers can apply lessons from The Wizard of Oz to classroom practice. Think about it as you journey down the yellow brick road in pursuit of teaching excellence. Do you see it as being over the rainbow or in your own backyard?
SIDEWALKS

FROM PAGE 1

student-customers. On the other hand, if my focus is to ensure that students learn, then I must understand how they learn, why they learn and which teaching methods enhance their learning.

As today’s learners take a different path than the one I’m used to or the one I would classify as “being right,” I must be willing to look beyond “what was effective” to “what is now effective” and, even more, to “what will be effective” in the classroom of the future.

I must allow for the fact that all around me new learning paths are being created—some through traditional means (e.g., research), others through my own observation. By studying where my students are now walking, I see opportunities to create a new way, a better way, to encourage their learning.

In the end, I’m glad that new sidewalk is in place. I’m also pleased that my students and their world will continue to change, challenging me to discover their new paths and to consider how my teaching might better bring learning to those places where they walk.

LECTURE NOTES

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two blanks would be filled in, one at a time. When finished, students would have the following in their notes:

In an interval scale of measurement, numbers indicate magnitude with equal numerical intervals reflecting equal differences in magnitude.

In most situations, students fill in about one to six words, and in all cases, the missing words are absolutely essential to the meaning of the sentence. Naturally, I expand on the information in the notes by providing background, examples and further details. I often challenge students to predict what the missing word(s) will be, based on their knowledge of the assigned reading or the information previously covered in the lecture.

I also use FITBNs when presenting empirical research studies. I normally begin by reviewing the theoretical background for the study and by providing an overview of the methods used, supplying key words and phrases that are missing from the notes. Also, rather than having the results of the study appear in the printed notes, I give students only a blank chart and have them fill in the missing numerical information during class. Because the results are not already in the notes, I can challenge the class to try to predict the outcome of the study based on their knowledge of the relevant theories.

Before I began using FITBNs, I found that having complete notes caused some students to “tune out” of the lecture, and some even felt that because they already had the notes, they did not have to attend the lecture at all—definitely a recipe for disaster! These problems have disappeared since I began using FITBNs. Furthermore, they promote class participation because they force students to use the notes in an active rather than a passive manner. My students report that they strongly prefer them over complete notes because the FITBNs make them feel more engaged in the learning process, help them to stay focused during lectures and increase their sense of ownership of the lecture notes. In addition, students feel that FITBNs reduce their anxiety during lectures and let them study and learn more effectively. In summary, FITBNs have been an extremely worthwhile addition to my courses, and other instructors may wish to consider the advantages of this approach.

VIRTUAL TEAMS

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they are somewhat inhibited by people they don’t know. Quantitative data indicated that social loafing was isolated to less than 5 percent of possible cases. However, levels of cohesion reported by group members were higher in those groups with stable membership. Interestingly, students in groups with fluid membership did not report lower levels of internal communication or decreases in their perceived abilities to influence group decision making.

Also of note were some findings relating to extraverted and introverted team members. Results “show that introverts actually felt more influence than extraverts during this exercise and perceived a greater cohesiveness and better internal communication.” This finding held true regardless of whether group membership was stable or fluid. (p. 613) Dineen suspects that the virtual environment somehow “levels the playing field,” making it easier for introverts to contribute during group interactions. “This is important because it suggests that conducting online team exercises might bring more equivalent contributions from all team members.” (p. 613)

This article is exemplary not only for the creative design of the group work, but also for the comprehensive way in which the impact of the approach was analyzed and assessed. This is an impressive piece of practitioner pedagogical scholarship.

Creating Effective Handouts

For most of us, handouts are a staple of instructional life, but as Teresa Sakraida and Peter Draus (reference below) point out, their “development is often a trial-and-error process.” (p. 326)

Like so many other aspects of instruction, we take the construction of handouts for granted, disregarding that their various uses implicate their design. Intuition guides the creation of most handouts.

The article referenced identifies a range of purposes for handouts. They can function as advance organizers, previewing and preparing students for what’s to come. They can introduce activities, describe the task, offer advice on process and identify outcomes. They can expedite progress through material by providing students with drawings, graphs or other data that take excessive time to replicate by hand. They can offer a break during a lecture, allowing students to read instead of listen. They can serve as study guides, containing summaries and highlights of key points covered in class or in the text. They can convey other messages, such as an instructor’s interest in the material, a humorous anecdote or good advice on successful study strategies.

Instructors used to duplicate handouts and distribute them in class—today technology makes it easy and convenient to provide materials on a course website, along with links to other related and relevant sources.

The design features of successful handouts are more than just a matter of advice—they have been studied and are recommended based on empirical analyses of features known to expedite the learning process. Among the most important design features is the need to keep the handout simple, especially when it’s being used as a presentation aid. Don’t include a lot of unnecessary detail; keep the focus on a single topic.

It is also important to consider the visual impact of the handout. In part this relates to its functionality. If students are to take notes on the actual handout, make sure that there’s enough space to do so. It’s easy to check this by looking at notes that students have previously written on the handout. Visual impact also involves how information on the handout is configured. Is white space being used to organize and highlight the information? Lists are frequently easier to follow than points buried in a paragraph. Technology makes it easy to manipulate many more design elements. Font size and style can be changed. Color can be incorporated. In fact, technology makes so much easily possible that the visual details can become distracting.

Rather than supporting the content, they can become more memorable than the content, or worse yet, they can detract from what’s most important.

Finally, do not underestimate the importance of using handouts that look professional. If the message conveyed to students is that spelling counts, then the teacher’s spelling ought to be exemplary. Handouts should be carefully proofread. If material from other sources is used, it should be properly referenced. If material is secured by copyright, that too should be acknowledged. As information changes, content on the handout should be kept current through regular updates.

None of this advice is new or unknown, but it behooves us all to sit down every once in a while and carefully consider the collection of handouts used in a course. Better yet, have students pull out the ones they have tucked into their notebooks or list the ones they remember using online; then give them the opportunity to provide some constructive feedback. It’s not that most handouts are bad; it’s that most handouts could be made better.