

Notebook Contributions, Interactive Teaching, February, 2010

Director's Column

Saint Louis University has outstanding teaching faculty, many of whom are regularly invited to share their innovative teaching strategies at conferences and other institutions. In order to increase opportunities for faculty to share their teaching strategies with their campus colleagues, the Center for Teaching Excellence has inaugurated the "Spotlight on Teaching" series. Dr. Richard Harvey, Psychology, inaugurated the series with a presentation on "Monopoly for the Classroom." Dr. Anneke Bart, Mathematics and Computer Science, continued the series with a session that focused on "Wikis in the Classroom." Information on remaining spotlight sessions being offered this semester is available on the Center's website (<http://cte.slu.edu>).

This issue of the newsletter continues the "Spotlight on Teaching" theme and contains descriptions of a variety of teaching strategies used by Saint Louis University faculty. By putting a spotlight on teaching at SLU, we hope to encourage increased campus conversations on teaching and sharing of innovative teaching strategies among colleagues. We encourage you to nominate yourself or recommend a colleague for inclusion in future "Spotlight on Teaching" programs.

-Mary Stephen, Director, CTE

Randy Richter

Spotlight on Teaching: Effective interactive classroom strategies

The classroom is a social environment. The atmosphere of the classroom can enhance or inhibit interactions with students. Before a strategy for classroom interaction can be effective, students have to feel comfortable in the classroom. Assuming a classroom atmosphere that encourages interactions, what are some strategies? With a class size of 65 to 75 the main thing I do to encourage interaction is to ask questions based on the material I am presenting. I have discovered over the years not to ask a question and immediately call on a student. Rather, I ask a question, let the students talk among themselves about the answer,

and then call on a student. This takes some of the pressure off an individual, since the answer is based on what 2 or 3 people discussed. Another strategy is to move around during class and even to walk up several rows in a lecture hall. This serves at least 2 purposes. First, it makes it easier to encourage participation from the back of the room and second, it may break down that invisible barrier at the front of the room between the teacher and students.

Lately I have been using some of the presentation tools available in the classrooms. Specifically, I have been writing on PowerPoint slides with the electronic ink. This allows me to ask a question and write down student responses for further discussion. Those of you who have been teaching before PowerPoint may recognize this as writing on transparencies. While this approach allows me to incorporate student ideas into a lecture, it does tie me to the podium more than I would like.

Finally, encouraging interactions in the classroom takes class time. There are times when I feel the pressure to cover a given amount of material and short change classroom interactions. On these days I usually leave the classroom somewhat dissatisfied. I wonder if the students feel the same way?

-Randy Richter, Physical Therapy

Mary Dunn

I use a number of techniques in the classroom designed to create an environment of active learning for my students. Even for classes with as many as thirty students, I make an effort to integrate some discussion and participation into each class unit. A suggestion one of my colleagues once made to begin each class with the simple question, "What did we talk about last time?" is an easy way to get students thinking about the material from the very first. In my theology classes, in which I assign a lot of primary source reading, we also do a lot of reading aloud in class, an exercise that helps not only to refresh the students' memories about what they read the night before but also (coupled with class discussion and teacher-directed questions) to model the practice of reading primary texts. This exercise is also a good way to solicit participation from the reluctant student. After my students read a portion of a primary text aloud, I will ask a series of questions relating to the passage, from the more concrete and fact-based to the more abstract and open-ended, sometimes calling on students to relate the passage to their own experience or to make a connection between the passage and material we covered earlier in the

semester. Additional ways in which I try to create an environment of active learning is by requiring students to take responsibility for presenting the material once a semester and by giving the opportunity for small group discussion several times over the course of the semester. Finally, I prepare and send out a guide designed to lead the students through the assigned reading prior to each class, which forms the basis for our discussion and allows me to feel less guilty about cold-calling on students!

-Mary Dunn, Theological Studies

Paul Lynch

The best interactive strategy I've ever discovered is still the office hour. Ten minutes of sitting down with a particular student and talking about that student's particular questions can do more good than an hour of lecturing. Office hours also offer the best opportunity to reassure students. Learning, we sometimes forget, is an emotional experience as well as a cognitive one, and students are reluctant to admit to difficulty in a setting as public as the classroom. Let's be honest: the same is true for teachers. But in office hours, it's a little easier to open up, a little easier to admit that learning—and teaching—is hard.

Conferencing is especially important for teaching writing. By the time students are deep into drafting a paper, it is impossible to address their difficulties with general bromides. Each paper has its own logic, and it's easier to deal with that diversity in a one-on-one setting. Often I will cancel a class meeting and instead spend that time meeting with students individually. This strategy can be taxing: I find an hour of conferencing more tiring than an hour of teaching. But the payoff makes it worth it. Listening to a student can go a long way to helping them solve their difficulties. Sometimes the best teaching strategy is to stop.

-Paul Lynch, English

Miguel Paniagua

Enhancement of the Aging Respiratory Physiology Component of the Pre-clinical Curriculum

The division of geriatrics has had a longstanding presence in the pre-clinical medical school curriculum in select areas, one of which has been in the second year medical student (MS-2) respiratory curriculum block. Dr. Paniagua has had an opportunity to assume a leadership role in restructuring, designing, and aligning these specific curricular pieces and their corresponding assessment. This has afforded him opportunity to work in objective creation, instructional design & innovation, implementation (including faculty development and training) and delivery in lecture and in small group teaching settings. Evaluation of achievement of said objectives in the newly designed curricular components has been very positive. Dr. Paniagua and the course coordinator of the respiratory physiology module as well as upper level divisional faculty involved with preclinical curriculum now have 3 years of positive evaluation data (including significant improvements in knowledge domains in pre-post intervention student self-assessments). The lecture activity entitled "The aging lungs: Respiratory disease in the geriatric patient" is an interactive and case-based lecture that precedes a small group activity, "Medication history-taking and the respiratory patient: Obtaining the information you need to provide the best care". In this innovative facilitator-led activity, the students have the opportunity to take a medication history from a simulated patient (the facilitator trained to act the part), discuss as a group the "medication bag" (prop used in each group included a set of real medicine bottles and inhalers, with labels) and its contents, and then as a group formulate a management plan that included medication reconciliation and adherence in the context of a respiratory patient.

- Miguel Paniagua, School of Medicine

Craig Van Slyke

Less lecture, more active learning

A few years ago (at a former institution) I was tasked with teaching large (200+ students) sections of a core information systems course. The first time out, the results were less than ideal. Students did not perform well, and if evaluations were any indication, they neither enjoyed the course nor found it valuable. My co-teacher and I met to assess the situation. We made two changes, the most fundamental of which was to integrate an activity into each lecture section. The activities typically involved students getting in groups of three or four and working together and discussing some task. For example, we asked students to find three ways in which two systems were similar and three ways in which they differed. After students worked on the activity, we discussed their findings as a class. While the activities could get ear-splittingly loud, results were quite remarkable. In one semester, exam performance increased dramatically and evaluations improved by almost a full point (on a five point scale). This experience profoundly impacted my teaching. At SLU, I teach a spreadsheet and database elective. Each course begins with a short (10-15 minute) lecture, followed by a demonstration, during which students follow along. Students then work on a practice problem, with my or their classmates' help.

- *Craig Van Slyke, Decision Sciences and ITM*

School for Professional Studies Collaborative Article

Interactive Teaching Strategies

Both traditional and non-traditional teaching environments, including online and video conference courses, provide many options to engage and interact with students. Faculty at the School for Professional Studies (SPS) have implemented a variety of technology-assisted learning activities designed to promote and enhance student learning. Following are a few examples.

Dr. Marita Malone uses a video-teleconferencing format very regularly. According to her experience, computers must be available for students at satellite locations. This allows them access to Blackboard, through which they can easily access slides, digital media, and case studies. Using video-teleconferencing, Dr. Malone

can simultaneously interact with students at both the St. Louis campus and the Belleville campus. Students discuss concepts with each other via both video and Blackboard.

Stephanie Mooshegian has also instructed courses through video conference at both SPS and its partnership programs. To promote two-way interaction, she incorporates a variety of interactive classroom activities each week. For instance, she designs activities that require students to work in small groups, report their results, and then discuss as a large group. When satellite sections are balanced in number, she has facilitated debates between sections. She encourages students to address each other by name, especially when communicating by satellite. These techniques have assisted in building camaraderie among students, even when they are miles apart.

Dr. Mary Dasovich engages candidates in the Renaissance Programs in Education by providing the opportunity for them to hone their technology skills using the *Promethean Learning System* (<http://www.prometheanworld.com/>). This system allows students of all ages and levels of education to develop, review, and enhance learning modules and support all aspects of classroom performance and interactions through utilization of interactive technology.

Sue Artis also incorporates the Promethean Learning System into her on-ground courses. She uses the Promethean Learning System for discussions and content presentations. Clickers are used by students to respond to questions, which leads to further class discussion. These technologies prepare students for their field experience courses and teaching profession.

In Jack Cancila's Accounting Concepts for Professionals course, students utilize Excel and other financial software in the classroom to solve accounting problems involving financial statements, financial analysis, and budgeting. Cancila oversees the Contract Management program, where instructors simulate government negotiations with contractors by using a conference call session between teams of students assigned to either a contractor or government employee role.

Dr. Matt Grawitch has developed intensive online courses that require student interactivity. From virtual groups to threaded discussions, his online courses provide an asynchronous format that requires student participation and active engagement. To facilitate this interactivity, Dr. Grawitch has developed clear, concise rubrics governing participation grading, specifying such elements as readability of posts, requirements to respond to other student comments, and a requirement to participate in online discussions at least three days each week.

Dr. Mary Rose Grant has designed her online courses to facilitate student-to-student, student-to-content, and student-to-instructor connectivity. She takes down the “walls” of the online classroom and engages students in a virtual environment conducive to exploration and experiential learning. Interactive websites and creative web quests give students an opportunity to find a path of learning relevant to their interests, both personally and professionally. Interactive dialogue and discourse starts with asking higher-order questions that encourage critical thinking and stimulate a quest for deeper learning.

Dr. John Buerck has incorporated the use of Wimba, a webinar utility, into his on-ground and distance learning courses. Through the use of Wimba, students can participate in live lectures from anywhere they have internet access. Wimba provides students with the opportunity to see video, hear the instructor’s lecture, and interact with fellow students. Students can raise their hands in the Wimba classroom, chat with the instructor and fellow students, and participate in live polls. The instructor can even permit students to use video and audio and can relinquish control of the virtual classroom to students so that they can present their own material.

As technology continues to advance, faculty are challenged to engage students by incorporating new and innovative teaching techniques. Whether faculty are implementing new technologies in a traditional, face-to-face classroom (e.g., Promethean Learning System) or are instructing with distance learning technology (e.g., Wimba, video-conferencing), faculty continue to promote student involvement. Clearly, technology is changing the educational environment, providing faculty with more choices for delivering content than ever before.

-Collaborative Group, School for Professional Studies

Richard D. Harvey & Amy M. Garczynski

Monopoly for the Classroom: An Innovative Approach to Interactive Learning

The hardest task for someone attempting to understand the complexity of oppression is to appreciate its systemic nature. That is, it contains interdependencies among many constituent elements. Such interdependencies make it hard to provide simple fixes or even attractive options to the oppressed. More important is the fact that self-perpetuating cycles ultimately replace initial causes, thus, shifting the question from “Who” is oppressing to “What” is oppressing. Readings alone are limited in their ability to convey this reality to students. Instead, what is needed is an activity that can convey this message through interactive learning. The game of *Oppression Monopoly* is one such activity. It provides students with the capability to see beyond mere reactionary, cause-and-effect events, to the underlying dynamics that perpetuate cycles of oppression. Specifically it illustrates cycles of inequity that occur between key institutions of upward mobility, namely, education, income, and housing.

Playing the Game

In starting the game, you randomly assign players to one of 5 positions (the banker and players 1 through 4). Player 1 plays Monopoly according to normal rules. The *Oppression Monopoly* rules ensure that player 4 is privileged while players 2 and 3 are oppressed. There are two stages of game play: *Blatant Discrimination* and *Equal Opportunity*. *Blatant discrimination* involves playing according to the skewed rules. Ideally you would spend 15-20 minutes in this stage

of play. During this stage, oppressed players 2 and 3 lose money quickly and some go deep into debt.

The second stage of the game is played using normal Monopoly rules (i.e., player 2 and 3 are liberated). The title *Equal Opportunity* is somewhat ironic because the players quickly discover that opportunities are not equal. Instructors should spend at least 5 minutes longer on this stage than the first. Even with the additional time spent in this stage of play the oppressed players continue to fall behind and experience inequity. No one ever catches up.!

Debriefing the Game

The game is concluded with a discussion. The discussion may begin by asking students to share their experiences. To finish the discussion, students are asked to reflect on how long they would have to play the game in order to 'even the playing field.' A secondary lesson in the game is revealed in student's pessimism about ever catching up. That is, beyond understanding the systemic nature of oppression, students learn that rectifying the problem requires more than merely changing the rules, but deliberate and powerful interventions aimed specifically at the historically disenfranchised.

- Richard Harvey, Psychology & Amy Garczynski, Psychology Graduate Student