An Education Paradigm Shift in University Teaching

Learner-centered education has roots in K-12 education in the 1990’s, where the term “student-centered” was more commonly used. After the usual iterative process of review and revision, the University’s 2004 Strategic Plan was adopted with learner-centered education as a significant part of USC’s new vision for increasing academic excellence.

What is Learner-centered Teaching?

The term, “learner-centered” describes a concept and a practice in which students and professors learn from one another. It proposes a global shift away from instruction that is fundamentally teacher-centered, at times glibly termed “sage on the stage,” focusing instead on learning outcomes. It is not intended to diminish the importance of the instructional side of the classroom experience. Instead, instruction is broadened to include other activities that produce desirable learning outcomes. Learner-centered teachers articulate what we expect our students to learn, design educational experiences to advance their learning, and provide opportunities for them to demonstrate their success in achieving those expectations.

A learner-centered environment grows out of curricular decisions and in-class strategies which encourage students’ interaction with the content, with one another and the teacher, and with the learning process. It encourages students’ reflection, dialogue, and engagement, and requires a reliable assessment of their content mastery.

Conventional wisdom has been that if faculty teach well and offer insightful, clear, rigorous, challenging, and even enjoyable lectures, our students will learn. Learner-centered pedagogy questions this assumption, given differences in how students learn. The emergence of learner-centered instruction arises from the quest to have all students achieve more success in their educational enterprise.

Interestingly some students and faculty have resisted the change. There are students who thrive in teacher-centered instruction and many claim to prefer the experience. Weimer (2002) suggests this is because as it makes less demands upon them, until the evening before an exam, whereas learner-centered pedagogy requires a more active role in the classroom experience. For faculty, it can mean a shift of some level of responsibility to students, which may feel like a loss of control.

Zemsky, Wegner, and Massy (2005) argue that students are not always motivated to maximize their learning; students choose schools on the basis of the “competitive advantage” they expect the school to provide after graduation. The fact that students bring other motivations to bear on their choice of educational environments presents other complications for a pedagogic strategy based on student-learning preferences.

To be effective, a change toward learner-centered teaching may require a re-centering of assessment practices to include more and different evaluations of the learning experience. In many cases, this may mean substantial revision of mid-semester and end-semester class evaluations to include questions regarding the learning experience.
Implementing Learner-centered Teaching

We are in an emerging era of “classrooms without walls” and the academic paradigm shift from teaching to learning, and thus, it becomes ever more important that faculty find new and creative ways to engage students. Moreover, as methods to teach and learn continue to expand into greater usage of varied forms of technology, it is imperative that students and teachers continue to connect, through currently successful and evolving means.

The shift toward learner-centered teaching is a change in emphasis that will cause faculty to rethink how we teach and assess our teaching toward the goal of realistic appraisal of student learning.

In his book, What the Best College Teachers Do (Harvard University Press, 2004), Ken Bain offers several characteristics of faculty who embrace learner-centered instruction. Included are, that they touch the lives of their students, including effect on career goals; they place a strong emphasis on student learning and outcomes through varied forms of assessment; and to achieve these goals, they may even plan their courses backward. Bain’s research also led to the conclusion that these faculty, regardless of university or college setting, know their subject material extremely well, are active and accomplished scholars, and value critical thinking, problem solving, and creativity. Bain further concluded that these faculty value teaching and consider it as demanding as their research and scholarship; that they seek to create a critical learning environment and aspire to challenge students to confront important problems. According to Bain, they have a strong trust in students, believe that students want to learn, systematically collect feedback on teaching, readily assess outcomes, and make appropriate changes. These faculty work to create a safe learning environment which allows students to try, fail, and try again. Bain’s findings also conclude that these faculty have a great faith in student ability and offer students ownership of class objectives. Perhaps the ultimate conclusion of Bain’s study is that learner-centered teachers view teaching as beginning with the student and appreciate the individual value of each student. In his words, “They don’t teach a class. They teach a student.”

Maryellen Weimer in her book Learner-Centered Teaching (Wiley Co., San Francisco, 2002) offers a parallel assessment but also one perhaps built for small college and university classes where the student is challenged to have ownership in the learning experience, including design of the curriculum, responsibility for some levels of instruction, and peer review. Her research indicates that the change is not always initially welcomed by students who often prefer passive learning (“sage on stage”) but who, in the end, find the experience far superior as a consequence of their ownership of the learning experience. Such does involve a reallocation of power in the classroom although it is clear that the ultimate control still remains with the faculty instructor. Her research concludes that student learning becomes even more effective when students are teaching students and involved in subsequent evaluation.

Barbara McCombs has also published extensively on the topic of learner-centered teaching (McCombs, 1997, 1999, 2000). Her work emphasizes the role of positive feedback between student and instructor and the importance of an encouraging climate of learning both in and outside the classroom. Her work also found significant value in our better understanding the individual student’s perspective on the learning experience and having diverse approaches that allow all students to be better invested in their learning experience.

Parker Palmer’s The Courage to Teach eloquently addresses the paradox of teaching- versus learning-centered education practices. His view is that if we separate teaching from learning, the result is “teachers who talk but do not listen and students who listen but do not talk".
Role of New Technology in Learner-Centered Teaching

The opportunity to bring new technological advances into the classroom continues to expand and it offers many diverse and creative means to further our educational mission. This has led to a rapid era of change in the nature of classroom instruction. Mixed media forms of instruction (PowerPoint, jpeg images, mpg, mov, mp3 files, and the internet) have spread widely across the campus, as have the utilization of distributive- and distance-learning formats. As in any experiment in teaching, the results can go badly, but in turn, we can revise and seek new ways to gain the anticipated outcome of improved learning. For example, recent news articles have reported on situations where university class lectures, once posted on-line, led to significant loss of class attendance. The issue has become common in some universities and needs vital attention.

Many of us post our class materials on class websites and we should vigorously confront the issue if it leads to a loss of interaction between students and faculty at USC. Learner-centered education requires a focus on student learning, but we also know that not all learners are equally invested. Regardless of how we teach and what technology we bring into the classroom or outside the classroom, we need to be proactive in our quest to assess through various forms of feedback the extent to which our investment is working and meeting our goals.

Web-based instruction can be a powerful means of enhancing the learning experience, including the posting of on-line quizzes and links to other websites for further enrichment. It also provides a means for video streaming of lectures, pod-casting, and interactive (live) linking between classes at different and very distant institutions. A large number of classes at USC have experienced student-led creation of class blogs, wikis, and other websites allowing independent student interaction regarding varied aspects of class-related studies, including exam review. Likewise, the web-based Totale’s Blackboard learning system has been made available to all USC courses and provides a range of utilization, including maintenance of course grades and student access to grade scores, posting of student contributions (such as term papers and PowerPoint files), and a site for students to share their work, when it fits the goals of the class. Blackboard can be cumbersome to use but also provides considerable utility.

The widespread use of Microsoft’s PowerPoint is a good example of how new technology has successively gained a widespread foothold in the classroom. For the same level of content, faculty have found that it provides a significant means of broadening the student’s exposure to a subject through incorporation of diverse visual information. A PowerPoint file can also be posted on-line so that students can return to a lecture for further review and students find that PowerPoint allows an excellent means of giving their class presentations. For those faculty who have chosen to use PowerPoint, it has usually replaced use of slides and overheads, but interestingly, it has not always replaced the chalkboard (or marker board). Depending on the nature of the course, many USC faculty continue to use the chalkboard, in concert with PowerPoint images and others forms of media, to slow the pace of the lecture and help students take notes, a time-earned means of keeping students engaged and aiding the learning process.

A growing number of classes at USC have taken advantage of public response systems (PRS or “Clickers”) to evaluate learning on a real-time basis. The utility of this new technology is addressed in the next section.
Death by PowerPoint

To echo a 2008 CET forum by the same title, when all information for a class lecture is available on-line, students may see no need to attend class. The PowerPoint and other forms of media used for a class should remain as an outline resource along with visuals to impart additional information. However, the basis for the lecture should continue to be the lecture prompting students to take notes and thus remain engaged. Finding ways to leave PowerPoint and other digital images are critical to engaging students, including time-honored use of the chalk blackboard and Socratic questions followed by the usual pause to gain response. Students need to realize that lecture materials provided on-line are only a part of the lecture and that most of the learning activity is interactive and in the classroom.

Assessment of Teaching and Learning

The national discourse on assessment is central to learner-centered education. We should ask how do we know our students are learning, what we think we are teaching them, and how to improve our educational programs so that they learn more, more effectively.

Current technology has also provided a new means of assessment of learning which can be accurately characterized as continuous and real time. The PRS (public response system), also termed “clickers”, is a real-time polling technology. For example, the instructor can post a question (such as multiple choice) on a slide during the lecture and each student has a “clicker” with which she/he submits a response. The results from the entire class are then collected in real time and displayed. The implications of this technology are huge. We, as faculty can guess what students are learning until exams. But with PRS we can judge learning during class time and make appropriate adjustments in how we teach and how our students learn. Students can also assess how well they are learning relative to their peers. There are many features of PRS-enabled teaching that are more learner-centered from a conventional lecture, including the following:

1. A Personal Response System provides continuous real-time assessment during class
2. Allows agility in teaching and immediate response to the needs of the class, as well as minimize wasted class time
3. Engages students in active learning during class – students become true participants in the learning process
4. In addition to assessment, questions can be used to provoke thinking, correct and challenge students’ misconceptions
5. Questions serve as launching pads for peer instructions
6. Facilitates a more concept-based rather than skill-based course

Engaging Students in Learner-Centered Instruction

Regardless of instructional format, faculty should continue to seek means to remain engaged with their students. This has always been important to classroom instruction, but in these times of pedagogical change, it is even more relevant. The means are well traveled and proven to be substantial to the learning experience of students. The following is a distillation from a recent workshop offered by USC’s Center for Excellence in Teaching, “Engaging Students in a Learner-Centered Classroom”, which is available on-line in both PowerPoint and video format:

1. Know your students. Depending on the size of the class, this could mean knowing their names, majors, and backgrounds. But foremost, it means that you know a student is in your class, and hopefully more. Most students relish this recognition and it empowers their engagement to learn.
2. Style of instruction. Faculty are encouraged to keep the class interactive. One aspect of learner-centered instruction is providing students the opportunity to teach their peers. It also serves to further student responsibility or ownership of class objectives, including the learning process. The time-honored Socratic method of teaching continues to be a vital means of engaging students.

3. Make the course relevant. Many students have clear educational and/or career goals or may simply ask, “Why learn this?” We are encouraged to relate the class to historical or societal issues where appropriate, or students’ future goals. The learning goals of the class need to be perceived as relevant to the student’s aspirations or experience. In some classes, this can mean the use of current topics or case studies extended to problem-based learning.

4. Active teaching. This is as important as ever, including the role of humor and even story telling. Faculty are encouraged to share their passion regarding the subject and to feel free to get personal by offering their own anecdotes. The use of eye contact, variation in voice volume and tone, provocative questions, and the long entrusted pause to wait for answers continue to be important methods for drawing students into the learning process. In large classrooms, one can leave the podium and walk the aisles to further involve students in the new learning mode. Once they have it, let them explore. This is when we need to give full rein.

5. Faculty availability to students. In any research university such as USC, our work often competes with time devoted to students. All of us post “office hours,” which can often be underutilized by our students until the times of midterms and final exams. Some of us have office hours at redundant times during the week, which can be an impediment to student access. Faculty are encouraged to stagger posted times of availability. Many USC faculty have augmented office hours with stated times of “open door” availability. E-mail correspondence has also aided access and should continue to be encouraged.

References:

Bain, Ken. What the Best College Teachers Do (Harvard University Press, 2004).


McCombs, B. L. What do we know about learners and learning? The Learner-centered framework: Bringing the system into balance. (Educational Horizons, 2004).


Useful USC Links:
Center for Excellence in Teaching
http://www.usc.edu/programs/cet/resources/

Center for Scholarly Technology
http://www.usc.edu/programs/cst/tls/

http://www.usc.edu/clickers