



Appendix 5.1

Learner-centered Teaching and Education at USC: A Resource for Faculty

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. It was grafted onto the assessment movement of the 1980's and hailed as a new paradigm by educational theorists, regional accrediting agencies, and national organizations. Its pedagogy appeals to teachers committed to student learning, while its emphasis on assessment appeals to those concerned with accountability.

Many of our USC colleagues first became acquainted with the concept when it appeared in early drafts of the university's 2004 Strategic Plan. During this time, faculty assemblies convened to discuss and make recommendations regarding the draft document, including the topic of learner-centered education in a research university. 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.

This committee was formed as part of the process of further implementing the Strategic Plan. During our investigation, we were pleased to find that the practice of learner-centered teaching is well embedded in units across the university, in response to the emerging pedagogy in this area nationwide and in keeping with faculty interest at USC in improving our efforts on behalf of our students. For reference, we refer to the committee's document “*Inventory of Learner-Centered Teaching at USC.*”

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.

In the course of our discussions, other possibilities have also been examined. There is evidence to suggest, for example, that learner-centered pedagogy does not raise the desirability of an institution in terms of admissions applications. 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. The committee also felt strongly that longer-termed assessments need to be implemented, including some at graduation and at post-graduate intervals among our alumni.

Through considerable study and often engaging debate, members of our committee, like the larger faculty, have embraced learner-centered pedagogic practices and have expressed enthusiasm for making these learning strategies more widely available at USC.

Two Myths Regarding Learner-centered Teaching

In our investigation, the committee found two common misconceptions regarding learner-centered teaching, including:

1. Learner-centered teaching removes the central role of teacher as a prime mover of the educational experience. For USC, the committee determined that the role of the “sage on stage” should, where appropriate, remain a positive factor in any classroom experience. Although there are many writings on the subject that posit a lesser role for the teacher (e.g., Weimer’s *Learner-Centered Teaching*), the committee’s view is that for USC, the faculty instructor must remain the central authority and have full responsibility for the learning outcome of a class. Obviously, for some classes, there is also the expectation of increased student responsibility, which can happen regardless of class size, depending on the nature of the curriculum.
2. Learner-centered education is essentially a technology-centered initiative leading to increased forms of distributive- and distance-learning, and an abandonment of classroom-based instruction. Our committee found no basis or support for this view. Learner-centered teaching offers challenges to both faculty and students to share mutually in the responsibility for the learning experience. To enhance the learning experience, it has always been important that classes seek means to accomplish learning goals. This can mean improved utilization of technology and opportunities beyond the conventional classroom, but it does not mean that older, successful teaching practices have a diminished role. In many ways, they are more important than ever.

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.

This is not particularly new. Over eight years ago, the Academic Senate endorsed a resolution (**Resolution 97/98-02**), which stated “Therefore, it is resolved that faculty and administrators should work together to better enable faculty to increase their day to day availability to students and create opportunities for timely and individualized interactions by increasing their time on campus and/or by establishing and using alternative electronic means of communication.”

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. To inform our discussions, committee members were invited to review a range of current literature regarding learner-centered teaching. In summary, we found several publications particularly helpful.

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. They touch the lives of their students; 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 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. From the committee's perspective, 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. Our experience is that they enjoy exploring the new dimensions it provides for giving an effective lecture. 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.

Assessment of Teaching and Learning

The national discourse on assessment proved to be the most contentious part of our discussion of learner-centered education. Committee members agreed upon the central purposes of assessment: to answer the question posed by then Provost Lloyd Armstrong, "How do we

know our students are learning what we think we are teaching them?” and to improve our educational programs so that they learn more, more effectively. There are, however, consequences of assessment models typically associated with learner-centered education that deserve critical scrutiny in defining the term at USC.

In privileging learning outcomes that lend themselves most easily to assessment, the national discourse on learner-centeredness emphasizes know-how over knowledge; education that cannot be easily quantified is disparaged compared to skills that can be. “Education for lifelong learning,” for example, has been criticized because it does not lend itself to readily demonstrable outcomes. However, many of the most important learning objectives identified in the Strategic Plan share this character. Committee members believe that the methods of assessment should not dictate learning objectives at USC, but rather reflect those academic goals identified by the faculty.

The national discourse on assessment also discounts the perceptions of faculty and students (the kind of scores and comments recorded on student evaluation forms) in favor of direct assessments of student work. However, students will often do their best work only when it is evaluated by their instructors; the strategy of “embedding” means of assessment into classes suggests even by its implicit metaphor that assessment is often extraneous to the class content. A concern was expressed by committee members that the assessment model should not be allowed to convert our curriculum into a social science research project. How to assess the accomplishments of our students and effectiveness of our programs without imposing on class time or the pedagogic relationship within the classroom is a challenge that should be addressed carefully at USC. The committee has more confidence in faculty and student perceptions than is typical in the literature and pointed to the relationship between those perceptions and student engagement – which is always considered a key determinant of successful learning outcomes.

The current practice of assessment of teaching at USC is through mid-course and end-of-semester student evaluations. These evaluations have clear value but need to be modified to include revised questions regarding the learning experience. As indicated earlier, we also need a longer-termed assessment process at various times subsequent to the class. The committee recommended that students be permitted to keep their USC email accounts after graduation, if they agree to complete an electronic survey from time to time. These results may prove to be a critical assessment of student achievement.

The committee endorsed strategies associated with creating diverse learning environments for students with different preferences and learning styles. But assessing programs on the basis of student preference is problematic. As pointed out by Zemsky and his colleagues (2005), students do not choose learning environments entirely to maximize their learning; other factors also influence their decisions. Students are very concerned about entrance to graduate and professional schools, and their educational choices also reflect their desire to maintain a competitive academic record. Expanding the range of educational opportunities we make available, through service learning, research, and collaborative learning should be important priorities at USC; but we should not presume an idealized student in assessing those programs. There are students who make their academic decisions in order to maximize their learning, but those students will thrive under any educational model.

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. 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, our foremost recommendation is that faculty must 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 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.

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

Palmer, Parker J. *The Courage to Teach* (Jossey Bass, Wiley Co., San Francisco, 1998)

Weimer, Maryellen. *Learner-Centered Teaching*. (Wiley Co., San Francisco, 2002).

Zemsky, Robert, Gregory R. Wegner and William F. Massy. *Remaking the American University: Market-Smart and Mission-Centered*. (Rutgers University Press, 2005).

Useful USC Links:

Center for Excellence in Teaching

<http://www.usc.edu/programs/cet/resources>

Center for Scholarly Technology

<http://www.usc.edu/cst>

<http://www.usc.edu/clickers>

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