The Future of Teaching: Effective Teaching Is All about the Students, Not about the Teachers!

Ronald A. Berk

DISCLAIMER: There is no way I can replicate my October 2006 presentation here due to the media involved, which was a significant part of the presentation. Seven music and four video clips were used to illustrate how teaching can and needs to move away from the traditional print and verbal forms and be extended to incorporate the latest presentation technology, which is an integral part of the students’ world, as well as live classroom demonstrations. A description of the content and, especially, those teaching issues follow. You can try and hum the songs while you’re reading if you like. Here is a list of the songs: Star Wars Theme, “Everything’s Coming Up Roses” (Gypsy), “We Can Do It” (The Producers), “I’m Every Woman” (Whitney Houston), “All By Myself” (Celine Dion), “Bad Boys, Bad Boys” (Cops), “One” (A Chorus Line). A new song has even been added here. The movie clips were from Rent, Meet the Parents, Runaway Bride, and A Chorus Line.

What We Know about Teaching and Students

The current foundation of what happens in K–12 classrooms throughout the United States rests on the training and in-service teachers receive, and what we know about how students learn. Let’s briefly examine those elements before considering what needs to be changed to improve teaching in the future.

Ronald A. Berk is Professor of Biostatistics and Measurement at The Johns Hopkins University in Baltimore, Maryland.
Teacher Education

K–12 teacher education programs (and, in fact, the act of teaching K–12) consist of two components:

1. Content, or what is taught in the classroom
2. Pedagogy, or how the content is delivered

The what is defined by district- and state-level standards that describe the knowledge, skills, and abilities (KSAs) for every grade level and every subject or course. I can’t even begin to cover the what in this chapter because I don’t have a clue what KSA means.

Through the process of elimination, then, my assignment is to cover the how; otherwise, this chapter will have lots of blank pages. Over the past decade, two major trends, or shifts, in teaching methods emerged: (1) learner-centered teaching, including active and cooperative learning techniques, and (2) instructional technology, which may be online, offline, in-line, or outtaline. Based on this methods foundation, the remainder of this section examines the students’ characteristics and how they affect how teachers teach.

Student Characteristics

Teaching methods must be built on what we know about our students. They:

1. possess 8.5 intelligences, and each student has a unique intelligence profile (Gardner 1983, 1993, 1999, 2005; Gardner and Hatch 1989; Marks-Tarlow 1995; White 1998; Williams et al. 1996);
2. have 3–7 different learning styles (Conner and Hodgins 2000; Felder and Soloman 2000; Kolb 2005; Rose 1985; Schroeder 1997);
3. are savvy about technology and expect it, and are fascinated with electronic gadgetry;
4. are intuitive visual communicators, image- rather than text-oriented (Manuel 2002; Oblinger and Oblinger 2006b);
5. crave interaction with people (synchronous or asynchronous), tools, and concepts (Ramaley and Zia 2006);
6. prefer to work in teams (Manuel 2002);
7. learn through discovery by doing rather than through being told what to do; are experiential, hands-on, engaged, and constantly connected (Prensky 2001; Tapscott 1998);
8. respond quickly and expect rapid responses (Prensky 2001);
9. shift attention rapidly and multitask easily (Oblinger and Oblinger 2006b);

10. have the attention span of goat cheese (Berk 2002).

The content teachers teach is usually verbal or quantitative in form. Most often, teachers teach reading or English verbally and math quantitatively. That’s the most natural and, perhaps, the easiest way for the teacher. However, learning said content isn’t as easy. Every student has strengths and weaknesses that affect the way he or she learns—for example, if Jerome doesn’t have a strength in quantitative ability, he will struggle in his math courses.

Fortunately, Jerome has other abilities or intelligences according to the latest research in cognitive psychology—up to 8.5. In addition to the aforementioned verbal and quantitative intelligences, there are visual/spatial, bodily/kinesthetic, musical/rhythmic, interpersonal and intrapersonal (equivalent to Goleman’s [1998] emotional intelligences), naturalistic, and environmental (.5). Jerome’s strengths may lie in visual/spatial and musical/rhythmic. Just imagine: If we could teach by drawing on these intelligences and quantitative ability, how much more effective could we be? In fact, if teachers could teach so that 4–6 intelligences are tapped, probably every student could learn the material on most topics without struggling. Such strategies build on students’ strengths rather than their weaknesses—strengths that are translated into their particular learning styles (Kolb 2005). Designing teaching methods that systematically consider students’ multiple intelligences and their different learning styles is essential for effective teaching of all students.

The remaining characteristics listed above relate to both “Millennials” (Howe and Strauss 2000), the “Net Generation” of students—born between 1981 and 1994—who have grown up with technology (Oblinger and Oblinger 2006b), and “post-Millennials”—born 1995 to present. Among children ages 8–18, 96 percent have been online, 74 percent have access at home, and 61 percent use the Internet every day (Oblinger and Oblinger 2006a). Instant messaging (IM) is nearly as common a form of communication and socializing (70%) as e-mail (81%) among teenagers—almost 13 million teens use IM.

These experiential, technology-savvy Net Geners with the attention span of goat cheese want interactivity in the classroom with their peers, the instructor, tools, and concepts. Team experiences can provide these students with the active, participatory, visual, collaborative, fast-moving, quick-thinking, rapid-responding, emotionally freeing, spontaneous, combustible vehicle they so badly desire. The learning environment must be active, cooperative, social, and learner-centered for these students to thrive and be successful. Anything less will be considered BORRRRRRRRING.
What’s Missing in Teacher Preparation for the Future?

The foundation described above still isn’t adequate to address the needs of all students in an ever-changing culture. Teachers need to incorporate that culture in the future of teaching if they are to be effective. That means knowing the ingredients in a student’s world and adapting those ingredients to the methods teachers are already using, plus creating new and over-the-top strategies to reach all students. What follows is an image of our students in 2007 and what can be expected in the future, as well as suggestions for how all that we know about teaching and learning can be integrated to prepare teachers to be effective in tackling future challenges. These are organized into the following five sections: (1) ingredients in a student’s world, (2) creating an active, social, and learner-centered environment, (3) activating prior knowledge, (4) “fair use” of copyrighted materials, and (5) unique, over-the-top learning experiences.

Ingredients in a Student’s World

“School is boring. Everything is boring.” Ring a bell? I hear this from almost every kid, regardless of age, K–college. (Legal Note: Yes, I know this is nonscientific, hearsay evidence not admissible in a court on Law & Order or Shark, but this stuff isn’t going beyond this book chapter.) Who hasn’t? UCLA’s Higher Education Research Institute conducts a national survey of 250,000 college freshman at nearly 500 colleges and universities every year. One of their findings is that more than 40 percent of students report “they are frequently bored in class.” That percentage keeps climbing. Despite the fact that we know more about student characteristics, how to teach, how students learn, and technological applications to learning than at anytime previously, nearly half the class is now more likely to be unmotivated and disinterested in learning than they have ever been. Where’s the disconnect?

It’s a function of what these students deem important. This Net Generation (Oblinger and Oblinger 2006b) has grown up with Sesame Street, MTV, PCs, video games, iPods, MP3 players, PDAs, cell phones, and TV/DVD remotes as appendages to their bodies; more than 2 million children ages 6–17 have their own Web site. These are key ingredients in their world. Their use of technology focuses on music, music videos, movies, PC and video games, and TV programs. They live in a world of instant communication and media overstimulation, where between 6.5 and 11 hours of each day are consumed with multitasking using multimedia. Net Geners can communicate via IM, cell phone, and e-mail all at once, while surfing the Web and watching TV (Roberts 2006).
As the lyrics to the Peabo Bryson and Regina Belle hit song from *Aladdin* tell us, we are entering:

- A whole new world
- A new fantastic point of view
- No one to tell us no
- Or where to go.
- Or say we’re only dreaming.

The student’s world is not better than or inferior to the teacher’s; it’s just different. When students cross the threshold of a classroom, they experience culture shock. They’re numb with understimulation. How can teachers possibly compete with their world? They can’t. Therein lies the disconnect, and it will worsen as their stimulation accelerates with the cultural manifestations of technology in the future. That’s the problem; now, how do we fix it?

**Creating an Active, Social, and Learner-Centered Environment**

Effective teaching must consider all of the students’ characteristics in order to build novel learning experiences in the classroom; otherwise, students will find ways to access the required information from home, a library, or the mall. That means going far beyond the traditional modes of textbook-based instruction and the like to innovative and creative techniques that draw on both students’ multimediated world, multiple intelligences, multiple learning styles, and technological skills, and what we know about effective teaching practices, such as learner-centered teaching (e.g., active and cooperative learning), blended learning, and online teaching. These Net Geners want interactivity with their teachers, peers, and technology that permits them to discover their own solutions.

The primary focus and mantra for effective teaching has to be *teaching is all about the students, not about the teachers!* If the students’ world and characteristics are ignored, and teachers simply use their content expertise and the learner-centered teaching methods taught in teacher education programs, they will most likely be ineffective with many students—both now and in the future. Teachers have to get into their students’ brains and think like them, not like teachers. They need to mentally penetrate their students’ right hemisphere and cerebral Gortex® to find out what makes them tick, and view how they teach from their students’ perspective—through their students’ eye sockets.
Activating Prior Knowledge

Teachers need to leverage the music to which their students are listening, the videos and TV programs they’re watching, and the games they’re playing as instructional tools. These activities are driven by students’ interests and passions as well as by their gifts and abilities. Teachers can capitalize on those activities to increase learning. From a cognitive-psychology perspective, teachers can activate students’ prior knowledge of these cultural elements to generate motivation, interest, and attention to learn new information. Only by entering their world will teachers be able to connect with them, draw on their interests and what they already know, and extend their knowledge base. That is how teachers can connect with their students.

“Fair Use” of Copyrighted Materials

U.S. copyright law also supports this broad approach to mediated teaching strategies, making it legal for media and print materials to be used by teachers in their classrooms. Title 17 of the U.S. Code in Chapter 1§107 defines the “fair use” provision: “The fair use of copyrighted work . . . for purposes such as . . . teaching, scholarship, or research, is not an infringement of copyright.” It is recommended that an acknowledgment be given of the copyright holder as the source of the material (e.g., print, music, or video clip).

Unique, Over-the-Top Learning Experiences

When students are in the classroom, teachers need to stretch their imaginations to design learning activities to justify their physical presence in that venue. The time should be used for meaningful, valuable, unique, and nonreplicable experiences that students couldn’t obtain anywhere else. The students need to be engaged, interacting with peers, and connected to the learning activity. Teachers need to produce learning experiences that students would perceive as attendance worthy—experiences that will be unforgettable. Over-the-top exercises are appropriate if that’s what it takes to get the job done. What can be executed in a live classroom environment that can’t be transmitted online or in any other context? That’s the standard all teachers should strive to attain.

A Metaphor for Teaching

How does one conclude a chapter like this? Having taught elementary school and junior high for several years before completing a thirty-year stint at Johns Hopkins, I thought some type of metaphor representing my passion for teaching and its significance as a profession would be appropriate. Hopefully, those of you who share that passion now or in the past will agree.
My search for a metaphor for teaching brought to mind a Broadway musical that opened thirty-two years ago and then again a year ago: *A Chorus Line* (original in 1975; revival in October 2006). That show was all about putting it on the line, literally and figuratively. A white tape line was placed on the floor across the width of the stage, downstage (near the front), on which the dancers auditioning for the show (within a show) were told to stand. The musical is all about dancers (the gypsies who go from show to show) and the sacrifices they make mentally, physically, and emotionally when they walk onto that stage and put themselves on the line in every performance. They bare their body and soul before a live audience (as opposed to a dead one) every day. Every part of their being is being tested; there is nowhere to hide.

What a metaphor for life. The show’s creator, director, and choreographer, the late Michael Bennett, didn’t realize the symbolism in this line until it was drawn before one of the out-of-town pre-Broadway tryouts. The significance and meaningfulness of that line to police officers who put their lives on the line and a variety of other professionals—such as physicians, lawyers, athletes, bank robbers, and Jack Bauer on *24*—became apparent. It also had personal significance. Most anyone who saw the show could relate to that line and what it meant through the songs:

- commitment (“The Music and the Mirror”)
- sacrifices (“What I Did for Love”)
- preparation (“I Can Do That”; “At the Ballet”; “Nothing”)
- performance (“One”)
- satisfaction

Do teachers put it on the line? They must, or the preceding paragraphs are totally pointless. The parallels between Broadway dancing and teaching in the classroom are striking:

- Have you made the *commitment* to be the best teacher you can be?
- Have you made significant *sacrifices* in the process?
- What teacher *preparation* did you complete to become the teacher you are today?
- Are you *performing* every day in real time? Do you feel you are constantly being tested or challenged by your students? Do you bare your soul before your students? It’s almost impossible not to, given the time you spend together.
- Are you *satisfied* at the end of your class or day? Do you experience a “teaching high”?

*Effective Teaching Is All about the Students, Not about the Teachers!*
Certainly, the best teachers experience all of the above—and more. They probably finish their performance exhausted but also extremely satisfied with what they accomplished. What a feeling when you know you’ve put it on the line for your students, because, ultimately, it’s the students’ future on the line.

**References**


