

Teaching the Millennials

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They were born the day before yesterday, or so it may seem. Millennials have no memory of a world without the World Wide Web, cell phones, or personal computers. They are an Internet-surfing, iPoding, texting, Googling, Facebooking, and IMing generation. They have come of age during a time of dramatic technological changes in our society. Just consider the fact that the cell phone has become the fastest-adopted invention in the history of humankind. For many of them, texting and instant messaging have become the chosen methods of communication. Perhaps most of all, they have been plugged into one or another electronic device since they were toddlers.

They are our students and we need to explore ways of adapting the college classroom to reach them and teach them more effectively. A recent national study of 8- to 18-year-olds in the United States showed that youth today spend more time using electronic media — an average of about 7 hours per day — than they do in perhaps any other activity except sleeping (Rideout, Foehr, & Roberts, 2010). Commenting on the report in *The New York Times*, a pediatrician noted that for today's youth, using electronic media devices such as cell phones, iPods, computers and the like are as much a part of their environment as the air they breathe or the water they drink (Lewin, 2010). A recent study of 92 undergraduate students at a large urban university showed the average student was Facebooking approximately 30 minutes a day (Pempek, Yermolayeva, & Calvert, 2009). I'd like to think they were reading their psychology texts at least 30 minutes a day.

As a parent, the generational divide was brought home when my son (born 1991) was reading a book in the 7th grade and came upon a word he had never seen before. Looking up from the book, he asked, "Dad, what's a typewriter?" I quickly recovered from my amazement at the question to tell him that it was a relic of an ancient civilization recently unearthed in an excavation in a remote part of the Amazon. As a classroom test of the generational divide, ask your students if they know what the term "CC" means. Although they all have seen the term used in emails, few if any know it is an abbreviation of carbon copy. When you tell them it stands for carbon copy, expect to see some blank stares. When was the last time any of us used carbon paper, let alone any of our Millennial students?

Teaching Millennials effectively doesn't mean we need to "friend" them on Facebook or start a thread on Twitter (although that might be an effective way of keeping in touch with them). It does mean we need to reevaluate how we reach them and teach them both inside and outside the classroom. The traditional lecture mode of instruction may not be dead, but it does require retooling in this age of limited attention spans and increased emphasis on student engagement (Nevid, 2008). Writing in the *Chronicle of Higher Education*, reporter Scott Carlson noted, "A new generation of students has arrived — and sorry, but they might not want to hear you lecture for an hour" (Carlson, 2005).

As instructors, we may have a difficult time understanding our Millennial students. We may even think of them as an alien species. Yes, they may look like us, but we may wonder if they are really pod creatures who have taken over the bodies of our young people. Yet we should recognize that every older

generation has probably looked at the younger generation and thought, “What’s wrong with kids today?” Older folks complain about their work habits, their manner, their dress, and especially, their music. We say we weren’t like them when we were their age. But then our parents probably said the same thing about us.

Many books and articles have been written about the psychological characteristics of Millennials. Although we should be careful about overgeneralizations, Millennials are often described as feeling special and may have rooms full of trophies from competing on the playing fields, even if they didn’t win any contests. They are also frequently described as being spoiled, wanting work to be fun, and valuing friends and lifestyles over work and career. In contrast to boomers who felt they had to make their way through life on their own, many Millennials put a greater emphasis on collaboration with others and sharing work assignments, a change that reflects the more collaborative learning experiences they had in the lower grades.

We should also recognize that Millennials struggle with many of the same issues and concerns their parents and grandparents faced. Millennials, like generations before them, strive to carve out their individual identities and roles in life. They still dream the same dreams and face the same challenges of fitting in and making friends. They also face the same challenges when it comes to learning and acquiring skills needed to make their way in the world.

Although many Millennials may process information in different ways than earlier generations, it’s important to recognize that the human brain has not magically been rewired in the past 20 years. The principles of learning and memory still apply. Yet Millennials are using their brains in different ways to process information. Although instructors may need to adapt the classroom to meet the learning needs of Millennials, they should draw upon their knowledge of the learning process to help their students become more effective learners in the classroom. Let me offer a few teaching tips for adapting the classroom to the learning needs of today’s students.

Use Technology to Enhance Good Teaching, Not Replace Good Teaching

One way of adapting the classroom is to integrate technology as a learning tool, not as a replacement for effective teaching. Although it is beyond the scope of this paper, there are many established and emerging instructional technologies that can be used effectively, including PowerPoint, course management systems, student response systems (“clickers”), podcasting, and online learning systems. Podcasting, for example, can be used for various instructional purposes, such as to review or preview lecture content, provide study review notes, elaborate on course material (e.g., “Psych in the News”), or even offer full lectures for students unable to attend class. Podcasting is relatively easy to master and most college IT departments can provide support and equipment needed to create these brief downloadable audio recordings.

Develop Collaborative Course Assignments

Many Millennials have been working in groups since grammar school. One example of a collaborative learning exercise aimed at Millennials is the creation of a group or class Wiki. A Wiki is an inclusive learning assignment in which each member of the group or class can make his or her own contribution and freely edit others’ contributions. Wikis invite participation without needing to bring people together

in the same place, which makes them useful not only for class assignments but also for distance learning. They also encourage students to think critically about information they post because they know their postings can be edited by others. As instructors, we can monitor each member's contributions to ensure that each student plays a role. Instructors may grade students based on participation alone or by using rubrics that identify benchmarks for assessing both quantity and quality of each student's participation (for more information, see "Teaching with Wikis" on the University of Minnesota Web site: <https://wiki.umn.edu/view/TeachingWithWikis/WebHome>).

Wikis are surprisingly easy to set up, with many free or low-cost tools for building group Wikis available online. As for topics of interest, if you name it, they can build it (e.g., origins of prejudice, changing conceptions of mental illness over time, effects of violent media on children, neurobiology of memory).

The Smart Classroom: What's Wrong With this Picture?

Picture in your mind's eye a typical smart classroom in a lecture hall. What is it that dominates the center of the room? It's the almighty screen, of course. Now picture where the instructor is usually placed. In all likelihood, the instructor is positioned off to the side, standing behind a lectern. What implicit messages might the layout of the smart classroom be conveying to our students? Does it not suggest that instructors have become merely incidental to the learning process? That we are little more than well-educated projectionists whose major role is to control the PowerPoint and video displays projected on the screen? While I may be stretching a point here, I think as instructors we need to be mindful of the influence that subtle cues may have on the classroom experience and make the effort to get out from behind the lectern and become front and center in the learning process.

Ground Pedagogy in Principles of Effective Learning

As psychologists, we should apply principles of psychology to teach psychology. For example, we can apply principles of learning and memory to help our students become more effective learners. Let me offer a simple heuristic based on principles of learning and memory — the Four Es of Effective Learning — that conceptualizes effective learning in terms of four key steps: (1) engaging interest (2) encoding important information (3) elaborating meaning of newly learned material and (4) evaluating progress (Nevid, 2008):

1. Engaging Interest. Effective learning begins with focused attention. Instructors have but a few precious moments to grab their students' attention before their thoughts begin drifting elsewhere. Clearly, students are unlikely to encode key points from lecture material if they aren't paying close attention. Millennials have been raised in a media-rich environment in which they are accustomed to rapid screen changes. They expect information to be presented in digestible morsels, not lengthy expositions. We can more effectively grab their attention by using engaging but brief lecture starters, such as personal vignettes, demonstrations, puzzles, and short movie or video clips. Given the limited attention spans of many students today, we can apply the Rule of 10 by changing what we do during class every 10 minutes (or 12 or perhaps 15 minutes). That is, we can shift from lecture to discussion to video clip to demonstration and back again during the class period.

2. Encoding Important Information. Focusing attention is an important step in the learning process,

but students also need to encode the key points and concepts we want them to learn. Outlining key lecture points or using bullet points in PowerPoint helps direct student attention to key concepts. We can also use guiding questions to help students encode psychological concepts in YouTube videos and personal stories used in class. As suggested by Christy Price at Dalton State College, instructors can offer extra credit to students who submit links to YouTube videos that illustrate key psychological concepts and share these with the class (Novotney, 2010).

We can also encourage students to use the signaling devices in contemporary textbooks as signposts for learning key concepts, such as the survey questions used in the SQ3R method, topic headers, running glossaries, marginal inserts of key concepts, and concept charts and maps. Evidence supports the learning benefits of signaling techniques, such as cueing key lecture points and highlighting key concepts in text material (Nevid & Lampmann, 2003; Scerbo, Warm, Dember, & Grasha 1992).

Reading a textbook requires a more active level of engagement than reading a popular magazine. To drive the point home, I hold up to the class a copy of a popular magazine (*People*, for example) in one hand and a copy of the textbook in the other. I then ask the class to think about the differences in reading these two different types of materials. Reading a magazine typically involves a more casual reading style comprised of moving your eyes slowly across the page, catching a few phrases or sentences here and there, looking at the pictures, and turning the pages. Unfortunately, many students read their textbooks in the same casual manner. I suggest to students that when they read or study their textbooks that they stop after every paragraph or two and ask themselves, “What did I just read? What were the main points or ideas the author was discussing?” Then, to reinforce this new learning, I suggest they jot down the answers to these questions in a notebook, or type them into a computer document, or write notes in the margins of the text. Reading for knowledge acquisition requires more time and effort than casual reading or mere skimming, but it makes the time spent studying more productive and rewarding.

3. Elaborating Meaning. Many students are superficial processors of information. They may passively listen to the instructor’s words and copy down a few choice remarks, but don’t become engaged in the deeper thinking or reflection that leads to more enduring learning. Many Millennials are accustomed to merely cutting and pasting small blurbs of text or pulling bullet points from PowerPoint slides rather than thinking more deeply about the material. New learning is a fragile commodity that needs to be strengthened to endure. One way to encourage students to engage in elaborative rehearsal is to have them create personal diaries in which they keep a running commentary on topics of special interest. For example, students in developmental psychology can keep a running journal based on their experiences observing a child during the course of the semester. Those in fieldwork or service learning settings can keep a journal based on their experiences. Students may also create online journals or blogs, using the tools available at www.blogger.com or similar sites. Students should be aware, however, that online journaling permits public access to content they post.

We can encourage elaborative rehearsal or deeper processing in the classroom by embedding psychological concepts in personal stories and movie or video clips, and by presenting information in different modalities, such as visual overviews, concept charts and maps, group discussions, demonstrations, interactive exercises, and class projects. Recognizing that context creates meaning, we should contextualize key concepts by linking them to life experiences and by focusing on why they matter and are important to learn, such as by discussing drawbacks of using punishment in disciplining children and considering the risks posed by distracted driving and by living life loudly.

Journaling assignments may be used to help students elaborate the meaning of key concepts. In my introductory psychology class, I have students complete low-stakes or “writing-to-learn” assignments in which they receive credit for completing journal entries tied to key concepts (e.g., “How does the concept of _____ relate to your life experiences?”, or, “Can you give an example of the concept of _____ in your own experiences or experiences of people you know?”). They select one concept in each chapter to write about. Unlike high-stakes or graded writing assignments, students receive credit (but not a grade) for submitting journal entries, just so long as their work demonstrates serious effort and reflection about the concepts they write about. Journaling is ideal for large classes, as instructors don’t need to grade tall stacks of papers. Each journal entry may be limited to a paragraph or two in length and may be submitted on paper, as an email attachment, or posted online using an electronic filing cabinet on Blackboard or another course management system.

Raised in the age of the World Wide Web, many Millennials are accustomed to nonlinear forms of thinking, such as jumping from hyperlink to hyperlink. As instructors, we can further encourage elaborative rehearsal by using assignments that incorporate nonlinear thinking, such as having students create concepts maps showing relational connections between key concepts or by having them complete interactive or incomplete concept maps presented in a “fill-in-the-blanks” format (Nevid, 2009). Building group Wikis is another form of nonlinear learning assignment.

4. Evaluating Progress. Quizzing can be used not only to evaluate student performance, but also to signal key content discussed in class. An example is the mastery quiz, which is a brief (1–2 item, multiple-choice quiz) that presents students with two opportunities to answer the same question or questions, once at the beginning of class and then again at the end (Nevid & Mahon, 2009). The question(s) assesses knowledge of a key concept or concepts discussed during the particular class, but students are not told when during the class the concept(s) will be discussed. Students have the opportunity to demonstrate mastery of the concept and earn credit toward their final grade by providing a correct answer on either the pretest or posttest. Alternatively, instructors may credit students for correct answers on the posttest only in order to assess mastery of the concept by the end of the class session and avoid giving credit for “lucky guesses” at pretest. In addition to cueing attention to key concepts, mastery quizzing provides incentives for class attendance (students must be in class on days that mastery quizzes are given in order to earn credit) and punctuality (to earn credit, students must participate in both the pretest and posttest).

In conclusion, reaching and teaching Millennial students challenges us to adapt our methods to the learning needs of students today. By interacting more with our students and lecturing less, we can create a more dynamic learning environment to help our students become more effective learners. œ