

CREATING A SUCCESSFUL LEARNING ENVIRONMENT FOR THE MILLENNIAL GENERATION

Rhonda Rhodes, College of Business Administration, California State Polytechnic University, Pomona, 3801 West Temple Avenue, Pomona, CA 91768, 951.741.4618, rrhodes@csupomona.edu

ABSTRACT

Millennials are the largest age grouping in American history at 80 million [18]. They are bored, uninspired, and demanding changes in our universities [4] [6]. *Creating a Successful Learning Environment for the Millennial Generation* identified and ranked strategies that Millennials report will create their successful learning environment. There is no significant difference in strategies for females and males, ethnic groups, and different majors. A difference exists between published characteristics and self-reported characteristics of Millennials.

INTRODUCTION

The Millennial Generation is now appearing at a university near you! Eighty million [18] Millennials are spreading like a tsunami across our universities and demanding changes in the way we operate [8]. On track to become the most educated generation in American history [13], university students in the millennial generation are bored and uninspired in many of today's university classrooms [4]. The millennial learner has radically different expectations and requirements than previous generations [8] [12] and they expect the university learning environment to not only accommodate, but appreciate these changes.

A thorough review of the relevant literature showed the need for additional research about successful learning environments for the millennial generation. The importance of more research for the millennial generation is emphasized by Coomes and DeBard [5]. This study addresses Proserpio and Gioia's [15] need to act by identifying learning and teaching strategies for millennial generation students in university courses.

PURPOSE OF THE STUDY

The purpose of this study was to identify, rank, and compare learning/teaching strategies that create successful learning environments for millennial generation university students. And, compare published characteristics of Millennials with the Millennials self-reported characteristics. Specifically:

-  Rank the strategies for a successful learning environment for Millennials in university courses.
-  Compare the strategies for a learning environment identified by male and female Millennials.
-  Compare the strategies by various ethnic groups and majors of millennial generation students.
-  Compare the published characteristics and self-reported characteristics of Millennials.

RELEVANT LITERATURE

Millennials are not like any other generation [8]. They are a “powerhouse generation” of “doers” and “achievers” [7]. Proserpio and Gioia [15] describe the millennial generation university student in these terms: "our new generation of students learns in a somewhat different way than the previous verbal or

visual generations" (p. 73). "The millennials do seem unique; they are somehow different than the university students in the latter part of the twentieth century" [1].

Although Millennials value education highly, they learn differently than their predecessors [2]. This generation is the first to grow up with digital and cyber technologies—they are saturated with technology [3]. Facts about the Millennial Generation appear in Figure 1.

Figure 1 -- Millennial Generation Facts		
Names	Millennial Generation, Millennials, Gen Y, Generation Y, Net Generation, Me Generation, Facebook Generation, Echo Boomers, Nexters, Nintendo Generation, Digital Generation, Digital Natives	Contributors Barnes, et al (2007) Butterfield & Fox (2007) Coomes & DeBard (2004) Generation Waking Up (2014) Howe & Strauss (2000, 2007) Merlino & Rhodes (2010) McGlynn (2006) Oblinger (2003) Proserpio & Gioia (2007) Rhodes & Merlino (2012) Stein (2013) Strauss (2005)
Number	80 million -- Largest age grouping in American History	
Core Traits	Special Achieving Confident Sheltered Pressured Conventional Team oriented	
Traits	Self-expressive Open to Change Embrace diversity Respect their elders Have at least one tattoo Tend NOT to trust people Optimistic about the future Enjoy residing at their parent's home Being a good parent ranks above a high-paying career Want: Structure, Experience, Technology, Balance in Work and Home Expect: more involvement on campus, all assignments to have very detailed instructions, the same good grades they got in high school	
Education	On target to be the most educated generation in history 50% of Millennials are in a two- or four-year college 30% expect to someday earn a college degree. 20% of Millennials are college graduates	

Numerous sources state that the Millennial Generation is totally different than any other generation [8] [15] [7]. Proserpio and Gioia [15] report that there is a lack of compatibility between today's university students' learning styles and their professors' teaching styles (p. 70).

Having been raised in an age of media saturation and convenient access to digital technologies, they have distinctive ways of thinking, communicating, and learning [12] [14].

Teaching techniques are usually obtained by mimicking what was experienced in the faculty's own education. The aging professoriate, consisting of mostly baby boomers, tends to conduct their classes as their professors did—traditional lecture classes [16] with the professor talking and the student sitting.

Therefore, lecture has been the most used teaching strategy in university classrooms [10]. Progressiveness has shifted from a verbal to visual to virtual generation. The studies indicate research is needed that explores the unique pedagogical classroom and online course needs of millennial generation university students. While millennial generation students require different pedagogical strategies and techniques, the literature remains sparse as to what these strategies are and how to implement them.

METHODOLOGY

The study uses an observational methodology with a convenience sample. Observational studies provide information on “real world” use and practice. A ZoHo.com on-line survey was completed by 331 university students at California State Polytechnic University, Pomona. The survey was completed during the fall quarter of 2013. The students were from the Colleges of Agriculture, Business, Engineering, Environmental Design, Liberal Arts, Hospitality Management, and Science. The 331 students were registered in one of 19 classes from the seven colleges at Cal Poly Pomona.

After the surveys were completed online, all data was exported from zoho.com into Excel. The preferred strategies for a successful learning environment for millennial generation students were identified and ranked. The published characteristics were compared to the self-reported characteristics.

FINDINGS

The strategies required for a successful learning environment for millennial generation students in university classes were identified; in addition, published characteristics were compared to self-reported characteristics of the millennial generation.

Learning/Teaching Strategies

The learning/teaching strategies were ranked by the Millennials as very important, important, not important, and never used. The 58 learning -- teaching strategies were logically divided into subsections for ease of understanding. The subsections were: course structure, learning strategies, online strategies, assessment strategies, and facilitator strategies. Figure 2 displays the Top Six Learning Strategies and the Top Six Facilitator Strategies.

Figure 2 – Top Six Learning Strategies and Facilitator Strategies

Learning Strategies--Top 6	Very Important + Important	Facilitator Strategies--Top 6	Very Important + Important
active learning methods	95%	help on problems from instructor in class	95%
learn by doing	95%	publishing criteria for earning letter grades	86%
interactive learning methods	93%	instructor serving as facilitator	81%
in-class activities	88%	seeing faculty face-to-face during office hours	80%
doing problems in class	87%	instructor knowing your name	75%
inquiry-based approaches	80%	instructor helping you manage stress	65%

Figure 3 displays the Millennials preference for Course Structure. The rankings for Online Strategies and Assessment Strategies are also shown.

Figure 3 – Course Structure – Online – Assessment Strategies

Course Structure	Very Important + Important	Lecture courses ranked two percentage points above hybrid courses. Both far outranked online courses. However, millennials indicated a strong preference for having everything posted online, using blackboard, online tests, Google docs, and computer simulations.
traditional lecture courses	78%	
hybrid courses (on-line & in classroom)	76%	
online courses	48%	
Online Learning Strategies	Very Important + Important	Assessment Strategies
powerpoints posted online	97%	frequent feedback
blackboard for class organization	96%	prompt feedback
lecture notes posted online	94%	opportunities for second chances/make up
online access to media--video clips, etc	88%	chance to ask for a better grade
online tests	80%	little penalty for trial and error learning
Google docs for group work	80%	self evaluation
computer simulations	71%	self testing
social media	50%	in-class tests
digital storytelling	49%	essay tests
podcasts and webcasts	37%	use of "clickers" for question and answer
videoconferencing	36%	
blogs	28%	Frequent and prompt feedback and second chances were the most preferred assessment strategies. Essay tests and "clickers" were the least preferred.

CONCLUSIONS

Millennial generation students have very distinct ideas about what learning/teaching strategies create their successful learning environment. Most millennial students, regardless of age, gender, major, or ethnicity will benefit from the same preferred learning environment.

Ninety seven percent feel active learning is important, 95% prefer learn by doing, 88% rank in-class activities important, 83% rank cooperative learning important, and 79% rank trial-and-error learning important. These items seem to be the opposite of traditional lectures.

“Flipped Classrooms” only received a 39% preference ranking. However, “doing problems in class” (87%), “in-class activities” (88%) and “active learning” (95%) define a flipped classroom. Some strategies such as prompt and frequent feedback are important for any generation.

Most of the previously published characteristics about Millennials were confirmed. However there were several glaring differences. The millennial students surveyed **do not**: Have at least one tattoo, Enjoy residing at their parent's home, and they **do not** feel Sheltered, Conventional, or Special.

Figure 4 – Characteristics that do and do not describe Cal Poly Millennials

YES, these characteristics describe me!		NO, these characteristics do NOT describe me!	
Want to balance work life and personal life	91%	Have at least one tattoo	73%
Want Experience	90%	Sheltered	72%
Embrace diversity	88%	Conventional	64%
Want to use technology	87%	Special	59%
All assignments should have detailed instructions	85%	Enjoy residing at your parent's home	58%

RECOMMENDATIONS

To be successful with Millennials, the facilitator must recognize and appreciate the qualities of these students. Figure 5 is a compilation of the literature, the findings, and personal experience. Specific strategies for success as a millennial facilitator are listed. These strategies can be implemented today.

Figure 5 – Strategies for the Millennial Learning Environment

Creating a Successful Learning Environment for the Millennial Generation <i>Rhonda Rhodes, PhD</i>	
Strategies for the Millennial Learning Environment	Contributors
Pose questions	
Make connections	
Monitor time on task	
Know students' names	Barnes, Marateo, Ferris (2007)
Deliver appropriate lectures	
Cultivate a caring classroom	Beegle & Coffee (1991)
Facilitate relevant discussions	
Identify the limits of multi-tasking	Brookfield (1990; 1995)
Understand generational differences	
Vary assignments; resources; activities	Chickering & Ehrmann (1996)
Publish the criteria for earning letter grades	
Encourage collaboration and group projects	Grillo (2011)
Emphasize opportunities for additional help and support	Merlino (2009)
Assess by frequent & prompt feedback; online tests; self-evaluation; self-testing; peer evaluation	Merlino & Rhodes (2010)
Provide trusted guidance; focus; opportunities for second chances/make-up	Miller (1988)
Use technology; learning groups; Google; video games; You Tube; eLearning; Blackboard or similar course management system; computer simulations; social media; podcasts; preprinted notes; mobile devices	Partridge & Hallan (2006)
Available via email; text messaging; IM; office hours; virtual office hours; teleconferencing; telephone; smoke signals	Pinder-Grover (2009)
Incorporate social and interactive learning; communication that is real, raw, relevant, and relational; real world activities and real-world perspective; little penalty for trial and error learning; chance to ask for a better grade	Proserpio & Gioia (2007)
Include active learning; interactive learning; in-class activities; inquiry-based approaches; group work; competitive games; discovery-based approaches	Rhodes & Merlino (2012)
Appreciate their values; strengths; technology; social media; global awareness; cultural diversity; ambition; optimism	Roberts, Newman, Schwartz (2012)
Post online --powerpoint presentations; chapter notes; lecture notes; syllabus; schedule; assignments; facilitator information	Van Eekelen et al. (2006)
Be alert; visual; enthusiastic; customizable; fair; straightforward; flexible; entertaining, caring	Wilson; (2004)
Recognize environmental & cultural forces affecting Millennials	Wilson & Gerber (2008)

REFERENCES

(References cited in text only)*

- [1] Atkinson, M. L. (2004). Advice for (and from) the young at heart. Understanding the millennial generation. *Guidance & Counseling, 19*(4), 153.
- [2] Barnes, K., Marateo, M. & Ferris, S. P. (2007). Teaching and Learning with the net generation. *Innovate 3* (4) <http://www.innovateonline.info/index.php?view=article&id=382>. (accessed 2013)
- [3] Bonamici, A., Hutto, D., Smith, D., and Ward, J. (2005). The “net generation”: Implications for libraries and higher education. <http://www.orbiscascade.org/council/c0510/Frye.ppt> (accessed March 26, 2007)
- [4] Brown, S. A., Armstrong, S., & Thompson, G. (1998). *Motivating students*. London: Kogan Page.
- [5] Coomes, M. D., & DeBard, R. (Eds.). (2004). *Serving the millennial generation*. San Francisco: Jossey-Bass.
- [6] Frand, J.L. (2000), “The information age mindset: changes in students and implications for higher education”, *EDUCAUSE Review*, Vol. 35 pp. 14-23.
- [7] Goldgehn, L. A. (2004) Generation who, what, Y? What you need to know about Generation Y”, *International Journal of Educational Advancement*, Vol. 5 No. 1 pp. 24-34
- [8] Howe, N., & Strauss, W. (2000). *Millennials Rising: The next great generation*. Vintage Books-A Division of Random House. New York, New York.
- [9] Howe, N., & Strauss, W. (2007). The next 20 years: How customer and workforce attitudes will evolve. *Harvard Business Review, 85*(7, 8), 41.
- [10] Merlino, N. (2009). Key pedagogical strategies for millennial generation students in university courses. University of La Verne, 2009, 201 pages; 3370198.
- [11] Merlino, N. & Rhodes, R. (2010). Key pedagogical strategies for millennial generation students in university courses. Western Decision Science Institute Proceedings.
- [12] Oblinger, D. G., and J. L. Oblinger, eds. (2005). Educating the net generation. Presented at EDUCAUSE, Tempe, AZ August. http://www.educause.edu/section_params/conf/esem052/OneDav2-HO.ppt:3 (accessed March, 2013)
- [13] Pew Research Center (2010) Millennials – A portrait of generation next. [Pewresearch.org/millennials](http://pewresearch.org/millennials). Accessed November, 2013.
- [14] Prensky, M. (2001) Digital natives, digital immigrants. *On The Horizon, 9*(5), 1-6
- [15] Proserpio, L., & Gioia, D. A. (2007). Teaching the virtual generation. *Academy of Management Learning & Education, 6*(1), 69-80.
- [16] Rhodes, R. (2012). Millennials report their preferred learning environment. *Decision Line, Volume 43, Number 5, October 2012. Pages 9-14.*
- [17] Rhodes, R. and Merlino, N. (2012). *Technology in the 21st Century Classroom: Key Pedagogical Strategies for Millennial Students in University Business Courses*, , *Journal of Supply Chain and Operations Management*, Volume 10, Number 1, February 2012. pages 113-130.
- [18] Stein, Joel (May 20, 2013) Millennials: The Me Me Me Me Generation. *Time Magazine*. <http://www.time.com/time/magazine/article/0,9171,2143001.00html> (accessed January 2014)
- [19] US Census Bureau, <http://www.multpl.com/united-states-population/table> (accessed 01.15.2014)

*(complete list of references upon request)