Leadership and the Millennials: Transforming Today's Technological Teens into Tomorrow's Leaders

Mary Ann Wisniewski, Ph.D.
Director, Organizational Leadership
Professor, Business, Accounting, and Economics
Carroll University
100 North East Avenue
Waukesha, WI 53186
mwisniew@carrollu.edu
(262) 524-7164

Abstract

Although older and younger generations unfailingly tend to disagree on values and are inclined to perceive one another with a degree of skepticism and disapproval, it is an unmistakable reality that because of technology today's youth are approaching life differently than previous generations. It is also clear that today's Millennials are tomorrow's leaders. How then do we help facilitate the leadership capacity of today's youth? This article documents a year-long research study of university students' perceptions of the factors that characterize effective teaching and learning, in general, and more specifically, leadership education. The data suggests that traditional approaches to teaching will likely be met with resistance. A leadership education model for the Millennials detailing the purposes and content, along with strategies for teaching and learning is presented.

Introduction

Baby Boomers, those born in the 40s, 50s, and early 60s, often reminisce "Why, back in my day, we…wrote on chalkboards, dialed rotary phones that had party lines, shopped at the corner store, memorized trivia, searched the encyclopedia, and interacted with a few friends in the neighborhood." Today's youth, those born in the 80s and 90s, counter with taking online classes and using SMARTBoards, talking on iPhones, shopping on Amazon.com, accessing information on Google, researching topics on Wikipedia, and connecting with friends around the globe on Facebook.

Those born since the 1980s, commonly referred to as the Millennials, the Nexters, the Digital Generation, and Digital Natives (Prensky, 2001), are living in a world characterized by a swift pace, constant change, and technology. This generation is the first to grow up with digital technology such as computers, the internet,

cellular phones, and MP3 players. They are characterized by familiarity with technology and how to use that technology to interact with others. These facts, in and of themselves, suggest that the 20th century paper and pencil approach to learning is neither sufficient nor relevant. As a result, educational institutions are scurrying to find effective methods to teach these Millennials in ways that engage them in their learning and prepare them for the 21st century.

How then do Millennials believe they learn best? This article documents a year-long research study of university students' perceptions of the factors that characterize effective teaching and learning, in general, and more specifically, leadership education. A leadership education model for the Millennials, describing the purposes of education, the content and strategies for teaching and learning about leadership was developed based on student responses regarding effective education.

How Millennials Differ from Baby Boomers and GenXers

Prensky (2001b) proposes that "today's students have not just changed incrementally from those of the past, nor simply changed their slang, clothes, body adornments, or styles, as has happened between generations previously" (p. 1). He believes that young people today actually think and process information fundamentally different than previous generations (2001b). Schooley (as cited in Reeves, 2008) believes that today's youth are different from previous generations in that they have innate ability to use technology which makes them comfortable multi-tasking using a diverse range of digital media and literally demanding interactivity as they construct knowledge.

According to Prensky (2004), technology has become "an entire strategy for how to live, survive and thrive in the 21st Century" (p. 2). Nedday.org suggests today's youth "are not just using technology differently today, but are approaching their life and their daily activities differently because of the technology" (as cited in Prensky, 2004). Some ways in which Prensky asserts that youth today approach their lives differently from their predecessors include:

- They communicate differently (email, instant message, texting versus hand-written notes and letters).
- They buy and sell differently (eBay, Amazon.com versus. small, local retail stores).
- They search for information differently (Google, Yahoo, Wikipedia versus library "ready-reference" and encyclopedias).
- They socialize differently (Facebook, eHarmony, match.com versus hanging out in the neighborhood).

They learn differently.

Teaching/Learning Paradigms

Kuhn (1962) defines a paradigm as the set of beliefs, values, and techniques shared by the members of a given community. Paradigms may also be characterized as a philosophical and theoretical framework, and individuals working within a specific framework accept the assumptions, values and methods of that paradigm—at times, unaware of those underlying assumptions and values (Stech, 2007).

Two major paradigms evident in today's educational institutions—the behaviorist paradigm and the constructivist paradigm—are compared and contrasted to make explicit the fundamental differences in their underlying assumptions, values and beliefs regarding the purposes of education, the teaching/learning process, and the role of the educator (Apps, 1973).

Those operating within a behaviorist paradigm believe that that purpose of education is to transfer knowledge, deliver instruction, and transmit information from the teacher to the learner. The behaviorist teaching/learning process, then, consists of direct instruction of facts that exist outside of the student, memorization of those facts, passive learning, and extrinsic reinforcement. The environment is teacher-centered, and the role of the educator is to transmit information in the most efficient manner possible, often through lectures.

Alternately, teachers operating within a constructivist paradigm believe that the purpose of education is to help learners construct knowledge by building on individuals' schemas or cognitive structures to represent their meaning of the world (Piaget, 1966; Cervero, 1988). Central to a constructivist teaching and learning approach is the belief that students play an active role in constructing their knowledge by linking new knowledge with past experiences. Those who espouse a constructivist approach believe that active learning is more meaningful than passive learning, i.e., learning that is delivered or transmitted to the learner. Learning is an active, constructive, and goal-oriented process that is dependent upon the mental activities of the learner (Cervero, 1988). The learning environment in a constructivist paradigm is student-centered, and the role of the educator is to create a learning environment that builds upon learners' existing knowledge and experiential base, because their understanding and interpretation of specific content depends upon their prior knowledge and experience.

Shaw (2009) describes a paradigm shift occurring in today's educational system that is moving away from the behaviorist paradigm of direct instruction, memorization, textbooks, and passive learning toward a more constructivist paradigm in which learning is collaborative, interactive, global and project-based. She believes that knowledge is not memorization of facts and figures, but is

constructed through research and the application of what is learned. According to Shaw, today's curriculum should incorporate higher order thinking skills, multiple intelligences, and technology.

As a result, many educational institutions are engaged in a paradigm shift as they attempt to transition to a system that is designed to meet the learning needs of the 21st century learners. K-16 curricula are gradually becoming more student-centered, interdisciplinary, collaborative, relevant, rigorous, and real-world project-based; technologies, including online instruction and assessments, interactive whiteboards, blogs, student response systems, podcasts, WebQuests, and more, are being incorporated into the curriculum to more fully engage active learners.

Shaw (2009) contrasts 20th century education with education of the 21st century in the chart (see Figure 1).

20th Century Classroom	**21St Century Classroom**
Time-based	Outcome-based
Focus on memorization of discrete facts	Focus on what students know and can do
Lessons focus on the lower levels of Bloom's taxonomy – knowledge, comprehension and application	Lessons emphasize upper levels of Bloom's taxonomy– synthesis, analysis and evaluation
Textbook-driven	Research-driven
Passive learning	Active Learning
Learners work in isolation	Learners work collaboratively with classmates and others around the world
Teacher-centered: teacher is center of attention and provider of information	Student-centered: teacher is facilitator/coach
Fragmented curriculum	Integrated and interdisciplinary curriculum
Teacher is judge. No one else sees student work.	Self, peer and authentic assessments
Curriculum/School is irrelevant and meaningless to the students.	Curriculum is connected to students' interests, experiences, talents and the real world.
Print is the primary vehicle of learning and assessment.	Performances, projects and multiple forms of media are used for learning and assessment
Literacy is the 3 R's – reading, writing and math	Multiple literacies of the 21st century – aligned to living and working in a globalized new millennium.

Figure 1. 20th Century versus 21st Century Education

University Student Perceptions of Effective Teaching and Learning in the 21st Century

Unaware of the underlying educational values and assumptions in which they operate, many of today's educators teach from a behaviorist paradigm. They "assume that learners are the same as they always have been, and that the same methods that worked when they were students will work for their students now. But that assumption is no longer valid" (Prensky, 2001, p. 3). "Today's students are no longer the people our educational system was designed to teach" (p. 1).

Just as we are witnessing a shift in educational paradigms from the behaviorist to the constructivist, we are also observing a shift in the learning styles from the Baby Boomers to the Millennials. Today's students have changed considerably from previous generations. They realize that if they want to learn something, they have the tools and resources readily available to learn it on their own. Their learning is relevant, real-world, and generally involves technology. To more closely align educational approaches with the learning needs of the Millennials, it is imperative to begin to understand what today's students perceive to be effective teaching and learning in the 21st century.

The purpose of this research was to determine how university undergraduate students characterize effective teaching/learning in the 21st Century, in general, and more specifically, what factors they believe characterize effective leadership education. To achieve this aim, a grounded theory methodology was utilized (Glazer & Strauss, 1967). The intent of the research was neither to predict or control the world nor to transform it, but rather to understand the construction of the world as it exists in the minds of the individuals being studied. Through grounded theory, a great deal is learned about people (Bogdan & Taylor, 1975). The purpose of using the grounded theory approach is to generate new theory rather than verifying or correcting older theories. The process encourages the researcher to discover theory from data which are systematically obtained and analyzed. The researcher's role then, is to categorize the data into meaningful categories, and from the categories, to derive a substantive theory illustrating the latter with characteristic examples from the data.

Participants in this research were 66 undergraduate students attending a private comprehensive university in the Midwest. The participants were almost equally divided between males and females, with 33 males (51.56%) and 31 (48.44%) females. 25 students were enrolled in a traditional face-to-face Principles of Management course; 15 (60%) were business administration majors. Other areas of study represented were three accounting majors (12%), two graphic communication majors (8%), and one each of the following: music, history, communications, recreation management, and psychology.

22 of the participants were enrolled in a traditional face-to-face course on Leadership: Theory and Practice. More than 45% (10) were business administration majors, along with 18% (four) exercise science majors, two communication majors (9%), and one major in each of the following areas: music, biology, history, recreation management, sociology, and criminal justice.

Finally, 19 of the participants were enrolled in an online section of the Leadership: Theory and Practice course. In this class, 36% (7) were business administration majors, and 8% (2) were accounting majors. Other majors included one each of politics, communications, photography, psychology, nursing, biology, math, nursing, and undecided.

All participants were asked a series of seven questions:

- What do university students need to know to be successful in the 21st century?*
- What do university students need to know to be a successful leader in the 21st century?
- How do students learn best?*
- What learning experiences are most memorable to you? How do you learn best?*
- What about your current school experience is not effective for you as a learner?*
- If you could design the school of the future that would be perfect for the way you learn best, what would it be like?*
- If you could design a leadership program at this University that would be perfect for the way you learn best, what would it be like?

Questions 1, 3, 4, 5, and 6 (denoted with an *) were developed and used in a study of K-12 students in the Arrowhead Union Schools, Wisconsin. This researcher was also involved in that study. The students' responses to each of the questions are listed below:

Q 1. What do university students need to know to be successful in the 21st century? The respondents felt to be successful in the 21st century university students need the following knowledge and skills (listed in order of frequency of response):

- Technological competence (27%).
- Being open to change, flexible, willing to adapt to times of constant change (17.6%).
- Working effectively in a group setting and with diverse groups of people (13.7%).
- Communication skills – both face-to-face and electronic (11.8%).
- How to set short and long-term goals (10%).

- Self-motivation (9%).
- Time management (9%).
- Learning from one's experience
- Having a wide variety of experiences in situations beyond one's comfort zone (8%).

In addition, the students identified a number of personal characteristics or dispositions that they believe are important for success in the 21st century. These characteristics included being trustworthy, ethical, honest, truthful, respectful, having integrity, and optimism.

Q2. What do university students need to know to be a successful leader in the 21st century? The knowledge and skills university students believe are important for successful leadership in the 21st century include:

- Communication skills (21.6%) with people of different cultures, genders, and backgrounds as well as consistency in actions and words.
- Listening (13.7%) – valuing the input of followers and being open to new ideas and new people.
- Building trust (12%).
- Managing and motivating others (10%) – giving responsibility to others driving people to do their best.
- Critical thinking (8%) – analyzing before taking action and thinking outside the box to solve problems.

Q3. How do students learn best? The respondents were very specific when discussing how students learn best. Over 42% indicated that students learn best through active participation and group work. One student stated, "This generation is very hands-on." In addition, the students felt that seeing visual examples helped them learn (17.6%). Almost 14% indicated that they wanted to be able to apply skills and techniques directly to real-life settings as this style of learning would "eliminate the thought of wondering why we learn what we learn." In addition, more than 10% of the students felt learning occurs through the use of newer technologies. "If teachers use old technology, their students will shut down."

Q4. What learning experiences are most memorable to you? How do you learn best? When discussing how they personally learn best, students reiterated their preference for active participation and application of knowledge in a real-world setting. One student voiced this opinion as follows: "Test me by having me show my skills that I have learned by leading a group to an objective, test me by designing a corporate identify based on the needs of a client. Those types of situations are what I will encounter after graduation, not paper exams, and those are what I should be developing in college." Another student stated, "Give us a chance to get out there and do what was preached to me so many times during

class. A clinical experience allows you to have a chance to witness how things are actually done in a real situation, whereas in class they teach you how things are supposed to be done in a perfect world. But, let's face it; it is not a perfect world." A third student emphatically added, "In my current clinical setting (one of the most visited and largest recreational resorts in the world), every day we need to adapt to different guest situations, weather patterns, water conditions, just about anything and everything you can think of. NO day is ever the same. I personally learn best from experience and being thrown in the mix. I need general guidelines to follow, then I learn best in the field."

Q5. What about your current school experience is not effective for you as a learner? When describing the learning experiences that are least effective, students again were very vocal about what kinds of teaching and learning activities are less than effective. Almost 20% claimed that the teaching technique of "professors reading off of a PowerPoint presentation or out of a book" does not stimulate learning. Long lectures (17.6%) and memorization (15%) were also included as ineffective. To augment her response, one student pointed out that, "We simply read, take notes, take a quiz, listen to a PowerPoint lecture, and repeat each week. It makes it hard to keep engaged. It makes it difficult to take the situations and make them real." Another student lamented that, "Certain professors…have just such old-fashioned teaching methods that I just do not follow, and that causes my learning to be very ineffective. It also causes me to learn something, and then never think about it again after the test."

Q6. If you could design the school of the future that would be perfect for the way you learn best, what would it be like? Not surprisingly, university students were able to propose a number of ideas for designing a school of the future that would best enhance their learning. Some of the elements they suggested included the following:

- Every professor would be required to incorporate a teaching style that included visuals, hands-on activities, lecture, examples, group work, and discussion.
- Apprenticeships, internships, and shadowing.
- Pair up students with an individual who works on jobs in which students are interested.
- Spend two days each week in the classroom and another two days in a work place.
- My school of the future would be a school that spent year one teaching, and years two to four applying and learning through creating a professional internship-type setting.
- Group work and active participation to solve problems.
- Teach real-life ideas and ways to handle things. Do not focus so much on events that happened many years ago, but rather on events that have happened recently or on events that are in the making.

- Allow a student to run a class—what better way to gain knowledge of the subject, but also to develop your self-confidence, leadership, management, perception, and details.
- Interaction and class involvement.
- Class discussions and interactions allow me to see the opinions of numerous people.

Q7. If you could design a leadership program at this university that would be perfect for the way you learn best, what would it be like? When designing a leadership program for undergraduate university students, the respondents included the following components:

- Group work and simulations.
- Have different group work assignments addressing different parts of leadership and assign one individual to be a leader for the day. I would rotate the order so everyone learns how to be a leader, and they also learn how to communicate with others and to be understanding of others' ideas.
- Each week, have two days of lecture, and then an ever-changing group project. The lecture would show the students what it really takes to become a leader. The other two days could be putting those ideas into action in a way that people are split into groups and given certain assignments to accomplish.
- Simulations and actual activities that require a leader to step forward.
- Small groups where we have a situation that we need to get out of; each person takes turns practicing leadership techniques.
- Assignments directly applicable to the real-world.
- Real life experiences! Leadership can't be taught in a classroom; it must be experienced!
- I would have student come up with their own definition of leadership in a way that could be applied in the real world, such as being a coach, or working with children, or working in a community organization, etc.
- Engagement in the community.
- Shadow a leader or be paired with a mentor. Use some class time for students to spend time with a leader and learn from their experiences.
- Students would be involved in different organizations in the community, using the skills, practicing them, and seeing what works and what does not.

Data Analysis

66 undergraduate students majoring in a variety of discipline areas responded to a series of seven questions regarding effective education, in general, and leadership education, more specifically. The researcher read through each response and identified the characteristics and examples of effective education provided by each of the respondents. The researcher then grouped similar characteristics into categories, all grounded in the student responses. By clustering responses into meaningful categories, a substantive leadership education model for the Millennials has been developed. Based on the research data, the Millennials preferred teaching and learning strategies that are consistent with the constructivist educational paradigm.

A Leadership Education Model for the Millennials

The framework for the proposed leadership education model includes the purposes of the model (the goals and objectives of the program), the content (what is to be learned), the teaching and learning process (how do Millennials learn most effectively), and the role of the educator (Apps, 1973).

Purposes

The purpose of a leadership education model is to help learners to identify their core values and beliefs, examine the relationships between their espoused values and their actions, and help them construct a conceptual and theoretical knowledge base related to leadership that they can apply in real-world settings.

Content

The content of a leadership education model for the Millennials must emphasize the development of leadership skills. Grounded in the research data, effective leadership education programs should emphasize the development of the following skills:

- Effective Communication (speaking and writing).
- Face-to-face.
- Electronic.
- With persons of the opposite gender, with persons from other backgrounds and cultures.
- Effective Listening.
- Being open to others' ideas.
- Valuing the input of others.
- Collaboration.
- Working effectively with others from diverse groups.

- Managing others.
- Motivating others.
- Building trust.
- Technological competence.
- Critical thinking.
- Analysis.
- Goal setting and self-motivation.
- Time management.

Effective leadership programs must also develop individuals' conceptual and theoretical knowledge. Concepts essential to the development of effective leadership include a comprehensive understanding of leadership theories, styles and techniques, the visioning process, strategic thinking and planning, coaching and mentoring.

The Teaching and Learning Process

Constructivist approaches to teaching and learning believe that active learning is more relevant and meaningful that learning that is delivered or transmitted to the learner. The educator, therefore, needs to build upon students' existing knowledge and prior experience. Thus, a constructivist paradigm considers *how* one teaches and *how* students learn to be as significant as *what* is learned.

The respondents in this study identified seven major teaching and learning strategies to be incorporated into a leadership education model. These included stimulating student-led discussions based on current events or case studies; hands-on, active learning experiences such as in-basket exercises, simulations, and role playing; collaborative group work both with classmates and with others around the world; digital technology-assisted teaching and learning (online blogs and discussions, interactive whiteboard activities, Internet research and WebQuests, student response systems, podcasts, and more); self-assessment – authentic assessments that challenge students to demonstrate skills that are relevant and directly applicable to the workplace; and, engagement in the community through service learning, clinical experiences, apprenticeships, internships, or job shadowing.

Through these active learning processes, individuals will be challenged to add to or modify their personal theories of leadership. It is through this cognitive process that learning and change occur. Using a constructivist approach to teaching and learning, leadership education programs can enhance leadership effectiveness.

The Role of the Educator

The constructivist paradigm advocates active learning through which individuals construct their knowledge of leadership by linking new information with past experiences. Thus, the role of the educator is not to deliver or transmit information, but rather to actively engage the learners in constructing personal theories and philosophies of leadership by creating a learning environment that builds upon learners' existing knowledge and experiential base. (see Figure 2)

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The Purposes of a Leadership Education Model	**The Content of a Leadership Education Model**	**The Teaching and Learning Process in a Leadership Education Model**	**The Role of the Educator in a Leadership Education Model**
Help learners to identify their core values and beliefs, and examine the relationships between their espoused values and their actions. Help them construct a conceptual and theoretical knowledge base related to leadership that they can apply in real-world settings.	Effective Communication (speaking and writing) Face-to-face Electronic With persons of the opposite gender, with persons from other backgrounds and cultures Effective Listening Being open to others' ideas Valuing the input of others Collaboration Working effectively with others from diverse groups Managing others Motivating others Building trust Technological competence Critical thinking Analysis Goal setting and self-motivation Time management Leadership theories, styles and techniques The visioning process Strategic thinking and planning Coaching and mentoring	Stimulating student-led discussions based on current events or case studies Hands-on, active learning experiences such as in-basket exercises , simulations, and role playing Collaborative group work both with classmates and with others around the world Digital technology-assisted teaching and learning (online blogs and discussions, interactive whiteboard activities, Internet research and WebQuests, student response systems, podcasts, and more) Self-assessments Authentic assessments that challenge students to demonstrate skills that are relevant and directly applicable to the workplace Engagement in the community through service learning, clinical experiences, apprenticeships, internships, and/or job shadowing.	To actively engage the learners in constructing personal theories and philosophies of leadership by creating a learning environment that builds upon learners' existing knowledge and experiential base.

Figure 2. The Role of the Educator

Conclusion

The objective of the research described in this article was to identify how undergraduate and graduate Millennials university students characterize effective education, and based on that information, to develop an educational process designed to enhance their overall leadership competence. The data provided by the students suggest that, although conventional behaviorist educational approaches, including direct instruction, memorization, and repetition, may be most efficient for the educator, these methods are not the most effective for 21st century learners.

Those educators operating within a behaviorist paradigm may believe that what worked in the past will work in the present. Although straight columns of desks filled with orderly rows of students laboring to neatly complete worksheets might once have been an indication of effective teaching, their expectation and replication in today's classrooms are inexcusable at best.

21st century learners thrive on active learning in interactive settings. They are adaptive multi-taskers who are accustomed to technological innovations. Their educational and social environments are expansive. They use their existing knowledge, technological expertise, and social networks to construct and create new knowledge.

The Millennial participants in this study, although probably unaware of the underlying paradigmatic assumptions, concepts, and values, demonstrated a clear preference for a more constructivist approach to teaching and learning. They want to solve complex problems that are meaningful, real, and relevant. They want to use technology to assist in their learning, and they want to collaborate with others, both near and far, in applying their learning in real-world settings.

Today's students are tomorrow's leaders. Educational institutions have both an opportunity and a responsibility to assist them in becoming effective leaders. Educators at all levels need to design learning environments and experiences that are responsive to the needs of 21st century learners to capitalize on what they learn, how they learn, where they learn, and when they learn. In so doing, educators can no longer assume that what worked in the past will work in the future. "Why, back in my day" looks to the past. We need to focus on the future. We must educate today's students in ways that will assist them in developing the skills, competence, concepts, and perspectives essential for effectively leading change in the new millennium. In short, it is the responsibility of our generation to help transform today's technological teens into a new generation of leaders, characterized by passion, integrity, and competence.