

Instructing Multi-generational Students

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## Instructing Multi-generational Students

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There are many challenges to instructing multi-generational groups. Each generation has different values, experiences, work habits, and communication styles. In this paper we review how the values, habits, and preferences of four generations of students affect decisions about teaching and learning activities.

### Growth of the Multi-generational Student Population

Several factors have contributed to the increase of multi-generational groups working and learning together in the workforce and in higher education. People are living longer and working and studying into their latter years. Advances in health care, plus greater access to health care information and services have helped increase the average human lifespan since the mid-twentieth century.

The recent economic downturn has required many would-be retirees to delay retirement. Many worker who have lost jobs are going back to school to retrain for new work. “Three-quarters of all undergraduates are ‘nontraditional,’ according to the National Center for Educational Statistics” (Oblinger & Oblinger, 2005, p. 2.8). Oblinger (2005) says nontraditional students are those who have delayed enrollment, attend part-time, work fulltime, or have dependents. “About one-third of undergraduates are adult learners” (Swail, 2002). Wager (2005) says, “... the landscape of higher education is changing... For example, the number of adult learners continues to increase at many colleges and universities.” Regarding the challenges for adult learners, Wagner stated “Beyond the obvious difference of age and time away from the classroom, adult learners may not have the same comfort level or familiarity with technology—and they may be the least advised on how to use it” (Wager, 2005, 10.6). Consequently, organizations and higher-education institutions are experiencing the challenges of educating a multi-generational student population.

### Generations Defined

Generations can be divided into definable categories, although there are differing opinions on the time periods and labels assigned to each. A generation is an identifiable group that shares birth years, age location, and significant life events at critical developmental stages (Kupperschmidt, 2000). Lancaster & Stillman (2002) divide generations into Traditionalists, Boomers, Generation X, Millennials (also known as Generation Y and Nexters) and Generation 2020s (or Neomillennials). Table 1 below shows these generations and the years that roughly delineate them.

Table 1 – Division of Generations (Lancaster & Stillman, 2002)

Traditionalists	Boomers	Gen Xers	Millennials (Or Generation Y, Nexters)	Generation 2020s
Born before 1945	Born between 1946 and 1964	Born between 1965 and 1980	Born between 1981 and 1999	Born around 2000

Oblinger and Oblinger (2012) define the generations slightly differently, as seen in Table 2 below. They label the generation born before 1945 as “Matures,” instead of “Traditionalists,” The dates for the “Millennials,” or as Oblinger and Oblinger call them, the “Net Generation,” range from 1982 to 1991, and Oblinger and Oblinger do not include “Generation 2020s”.

Table 2 – Generations by Birthdate, Description, Attributes and Preferences (Oblinger & Oblinger, 2012)

	Matures	Baby Boomers	Generation X	Net Generation
Birth Dates	1900–1946	1946–1964	1965–1982	1982–1991
Description	Greatest generation	Me generation	Latchkey generation	Millennials
Attributes	Command and control Self-sacrifice	Optimistic Workaholic	Independent Skeptical	Hopeful Determined
Likes	Respect for authority Family Community involvement	Responsibility Work ethic Can-do attitude	Freedom Multitasking Work-life balance	Public activism Latest technology Parents
Dislikes	Waste Technology	Laziness Turning 50	Red tape Hype	Anything slow Negativity

Birth year is only one factor to consider in distinguishing among generations, and it may be a minor one. Experts say “generations are shaped much more by history than by chronological dates. It is important not to make assumptions about any one person based on birth year” (Reeves, 2008, p. 3).

### Traditionalists and Baby Boomers

“Traditionalists and Baby Boomers grew up before the advent of the personal computer, much less the Internet, and, in general, aren’t as comfortable with technology” (Worley, 2011, p. 32). “One of the top values of the Baby Boomer generation is relationship building, a valuable asset in team learning” (Worley, 2011, p. 32).

### Generation X

Walmsley (2011) says that Generation Xers generally have a “more informal style than Baby Boomers and are self-motivated.” She says “this generation is relatively good at personal communication and interactions, but they also use the Internet and email to make their lives more productive” (p. 26).

“The Generation Xers were the first ‘latch key’ generation and strongly influenced by emerging technological developments. Financially, they experienced wide-scale job loss and runaway inflation that led to their sense of economic and social skepticism. These events shaped their hallmark characteristics: they mistrust most of society’s organizations and institutions, and they believe that stabilizing influences such as job security are a myth. They seem impertinent because of their confrontational style. For Generation X, versatility is the key to stability” (Hartman et al., 2005, p. 6.7).

### Millennials

Millennials are also referred to as Generation Y, the Net Generation, or Nexters. “These members are very comfortable with the Internet and technological advances, as they grew up with the development of the Internet” (Black 2010, p. 95). Black (2010) suggests that Millennials think and process information differently than previous generations.” This can cause a disconnection between students and instructors. Black also says some research suggests “digital technology has transformed the human brain and the way it receives and processes information....Digital natives, fluent in acquiring and using technological tools and learning this technology quickly with an intuitive understanding of digital language, seem to use these tools as an extension of their brains. As members of the first generation to grow up with digital technology, they can speak its language” (Black, 2010, p. 95).

Students of the Millennial generation like to decide which learning technique works best for them. They are self-directed and approach learning as a “plug-and-play” experience (Black, 2010). They are very visually oriented and would rather see a concept instead of reading about it (Worley, 2011). Millennials must be entertained as they are being educated (Worley, 2011). Millennials are confident, independent and autonomous which makes them more assertive and affects how they learn in the classroom (Barnes et al., 2007).

### Neomillennials

Neomillennials are those born after 1994—just over a decade after the Millennials. This generation has

experienced an unprecedented digital immersion. The Pew Research Center's Internet & America Life Project - 2011 Parent/Teen Digital Citizenship Survey showed that usage of the Internet by teens was 95% (The Pew Research Center, 2011a). The survey also showed the percentage of teens ages 12-17 who own different types of different devices: 77% owned cell phones, 74% owned desktop or laptop computers, 79% owned iPods or MP3 players, 80% owned game consoles, and 51% owned portable gaming devices (The Pew Research Center, 2011b). Dede says, "Differentiating between the two millennial generations, millennial learners are those who learn using the world-to-the-desktop interface, whilst Neomillennials are involved in immersive e-learning environments" (Dede, 2005a, pp. 15.1-15.2). Sankey also defines Neomillennials in terms of learning modalities. "'Neo' means 'new' and 'millennial' referring to the learning modality required for the new millennium" (Sankey, 2006, p. 82).

## **Technology Generations**

The various generations of people experienced different technologies during their formative years. "Matures were exposed to large vacuum-tube radios, mechanical calculators, 78 rpm records, dial telephones, and party lines. Baby Boomers grew up with transistor radios, mainframe computers, 33- and 45-RPM records, and the touch-tone telephone. Gen-Xers matured in the era of CDs, personal computers, and electronic mail. For the Net Generation, the prevailing technologies are MP3s, cell phones, and PDAs; they communicate via instant messaging, text messaging, and blogs" (Hartman et al., 2005, p. 6.2).

Technological tools and processes can also be categorized into a series of generations. In computing, the focus has shifted from huge mainframes to minicomputers to personal computers, and, most recently, to mobile devices. And, as computing and communication devices have decreased in size, they have increased in performance (Hartman et al., 2005).

"Connectivity has experienced a similar transition across generations, from no connectivity to proprietary device-to-device cabling, to globally interconnected local area networks, and, now, to wireless" (Hartman et al., 2005, p. 6.2).

"Computers were initially developed as number crunching devices. The early emphasis on processing numbers, then words, has been joined by multimedia: graphics, images, video, sound, and interactive games. Prevalent among today's applications are interpersonal and group communication tools" (Hartman et al., 2005, p. 6.2). "The use of early computers was batch-processing-oriented and required programming skills and arcane commands. Today's graphical user interfaces and the Web make the operation of computers highly interactive and achievable by nearly anyone. The Internet has led to the kind of global village of information and communication envisioned by Marshall McLuhan" (Oblinger & Oblinger, 2012).

## **Generations and Instruction**

A challenge for an instructor is to account for differences among the generations and maintain an effective learning environment. An instructor must consider each generation's values when creating group activities. In cross-generational learning teams, each member brings different skills, values, and expectations to the group. Team-based learning provides the opportunity for each generation to teach the others and share their knowledge and skills..

Because of the diversity of experiences and preferences, it is important to make available a variety of learning experiences and opportunities for communication and collaboration. Each generation may be different, but they also have similarities. Zaporzan (2012) says the similarities include a need for communication and feedback, a desire for meaningful work that is connected to their interests, wanting to be included and heard, and a need for social interaction.

Walmsley's (2011) perspective about teachers from different generations working together is also applicable when instructors work with students from different generations. She says, "Differences in opinion are key for challenging traditions and making changes." She also talks about having respect for each other's experiences, which will create a more positive culture (p. 26).

## **Challenging Traditional Instruction**

Hartman et al., (2005) reported that students could determine characteristics of excellent teachers independent of generation, learning style, course modality, and technological sophistication. They identified six characteristics, independent of age, gender, and academic achievement that students attribute to the best faculty. Good teaching appears to be universal across generations. Excellent instructors:

- Facilitate student learning.
- Communicate ideas and information effectively.
- Demonstrate genuine interest in student learning.
- Organize their courses effectively.
- Show respect and concern for their students.
- Assess student progress fairly and effectively (Hartman et al., 2005).

“Higher education is going through significant changes stimulated by the rapid growth of the Internet, the increasing globalization of higher education, and the ever-pressing question of institutional and instructional quality. New modes of educational delivery through virtual networks are breaking the traditional mold of instructional provision” (Swail, 2002, p. 16). The availability of the Internet has given students many more options for learning beyond the classroom. New mobile devices that allow Internet access at any time have influenced student expectations for real-time and anytime communication.

What do these innovations mean for instructors? An instructor must be cognizant of learning preferences and attitudes, communication styles, and educational experiences of up to four generations within a single setting. The unique values, experiences, and preferences of these generations affect organizational decisions about learning and development activities. Instructors may need to redesign courses to meet the needs of four generations, and they must also be aware of their own particular preferences and capabilities relative to those of younger generations who may be more fluent with recent technologies.

Dede asserts “the technology and media used by children during their formative years do have an influence on how they learn, as do the media used by adults” (Dede, 2005, p. 15.1). “The growing prevalence of interfaces to virtual environments and augmented realities is beginning to foster Neomillennial learning styles” (Dede, 2005, p. 8). “Shifts in students’ learning styles will prompt a shift to active construction of knowledge through mediated immersion (Dede, 2005, p. 7).

So how does the influence of the World Wide Web affect students’ learning preferences? Dede says, “By its nature the Web rewards comparison of multiple sources of information, individually incomplete and collectively inconsistent. This induces learning based on seeking, sieving, and synthesizing, rather than on assimilating a single ‘validated’ source of knowledge, as from books, television, or a professor’s lectures” (Dede, 2005b, p. 7). Dede shows a comparison of Millennial and Neomillennial learning preferences in Table 3.

Table 3 – Comparison of Millennial and Neomillennial Learning Preferences (Dede, 2005a, pp. 15.15)

Neomillennial	Millennial
Fluency in multiple media, values each for the types of communication, activities, experiences, and expressions it empowers.	Centers on working within a single medium best suited to an individual's style and preferences
Learning based on collectively seeking, sieving, and synthesizing experiences rather than individually locating and absorbing information from some single best source; prefers communal learning in diverse, tacit, situated experiences; values knowledge distributed across a community and a context, as well as within an individual.	Solo integration of divergent, explicit information sources
Active learning based on experience (real and simulated) that includes frequent opportunities for embedded reflection (for example, infusing experiences in the Virtual University simulation < <a href="http://www.virtual-u.org/">http://www.virtual-u.org/</a> > in a course on university leadership); values bicentric, immersive frames of reference that infuse guidance and reflection into learning-by-doing.	Learning experiences that separate action and experience into different phases
Expression through nonlinear, associational webs of representations rather than linear stories (for example, authoring a simulation and a Web page to express understanding rather than writing a paper); uses representations involving richly associated, situated simulations.	Uses branching, but largely hierarchical, multimedia
Co-design of learning experiences personalized to individual needs and preferences.	Emphasizes selecting a pre-customized variant from a range of services offered

### Learning Engagement and Generations

“Blended learning provides a unique opportunity to bridge generations, providing the face-to-face contact requested by Baby Boomers, the independence preferred by Gen-Xers, and the interaction and sense of community desired by Net Geners. Extensive use of e-mail, discussion groups, and live chat increases communication and collaboration among students, as well as between students and the instructor” (Hartman et al., 2005, p. 6.8).

The Research Initiative for Teaching Effectiveness at the University of Central Florida conducted a survey of students' online learning experiences. The “positive narratives” for all three groups emphasized “flexibility, convenience, and self-paced learning for their online experiences. The less positive perceptions of the generations varied widely. Baby Boomers lamented the lack of face-to-face interaction in the online environment—a comment consistent with this generation's tendency to discuss and tell stories. Generation X was uncomfortable with the continual connectedness of online learning that contradicts their penchant to ‘get to the point’ and ‘move on with it.’ The Net Gen respondents were disappointed; they perceived a lack of immediacy in their online courses and felt that faculty response times lagged behind their expectations” (Hartman, et al., 2005, p. 6.8).

“Generational differences were also found in whether students changed their approach to learning as a result of their online experience... More than half of the Boomers claimed that they modified their learning techniques; the Net Geners decreased to a low of 23 percent. The narratives showed that Baby Boomers enhanced their technology skills and integrated them into their modified student roles, Gen-X students improved their ability to manage time effectively, and Net Geners felt a heightened sense of responsibility and motivation” (Hartman, et al., 2005 p. 6.9).

Brown says “In addition, faculty who are baby boomers and GenXers are acquiring Net Gen characteristics as they become more facile with—and dependent upon—IT. Planning for Net Gen requirements cannot be dismissed as catering to a single generation. IT and the work habits that IT encourages are here to stay; planning for the Net Generation is tantamount to planning for the future” (Brown, 2005, p. 12.20).

Writing about the design of physical learning spaces, Brown noted that, “In order to best serve the educational enterprise, we must design leaning spaces that optimize the convergence of the Net Generation, current learning theory, and information technology.” What used to constitute a learning space, a classroom, has opened up to also include any space where resources can be delivered via a wireless network” (Brown, 2005, p. 12.1).

Digital, portable network connectivity “make it possible for learning to happen informally, in areas outside the traditional classroom, library, and faculty office” (Brown, 2005, p. 12.2). “This means that learning, too, can

occur any time and anywhere” (Brown, 2005, p. 12.3). Students can meet on or off campus and anytime of day.

## **Course Design**

Hartman et al. (2005) report that at University of Central Florida, “beginning faculty are encouraged to redesign their courses to focus on being student centered and interactive. Beyond the course structure, faculty learn to integrate formative and summative assessment mechanisms, both for themselves and for students. The focus is on faculty facilitating instruction and students becoming active and interactive learners” (Hartman et al., 2005, p. 6.9).

“Blended learning provides a unique opportunity to bridge generations, providing the face-to-face contact requested by Baby Boomers, the independence preferred by Gen Xers, and the interaction and sense of community desired by Net Geners.” Communication and collaboration “among students as well as between students and the instructor” is increased by “extensive use of e-mail, discussion groups, and live chat” (Hartman et al., 2005, p. 6.9).

Designing courses for Net Gen students should balance their strengths, which also may be their weaknesses.” “The expectation for fast-paced, rapidly shifting interaction coupled with a relatively short attention span may be counterproductive in many learning contexts. Repetition and steady, patient practice—key to some forms of mastery—may prove difficult for Net Gen students.” And, in “a variety of learning situations, individual work is important” (Brown, 2005, p. 12.7).

Students should be included in the design experience as “active participants in the learning process.” “Design principles should include terms such as analyze, create, criticize, debate, present, and classify—all directed at what the space enables the students to do... Outside class, they should have access to applications and materials that directly support analysis of data, text, and other media. Forums for discussion and critical debate, both real and virtual, are key to encouraging learning and will be looked for by Net Gen students” (Brown, 2005, p. 12.7-8).

“Learning space needs to provide the participants—instructors and students alike—with interactive tools that enable exploration, probing, and examination. This might include a robust set of applications installed on the computer that controls the room’s displays, as well as a set of communication tools. Since the process of examination and debate leads to discovery and the construction of new knowledge, it could be important to equip spaces with devices that can capture classroom discussion and debate, which can be distributed to all participants for future reference and study” (Brown, 2005, p. 12.8).

The end of the class meeting “marks a transition from one learning mode to another.” “The real and virtual spaces outside the classroom ... should encourage learning.” Students should have access to class materials (which are increasingly digital) so that the active and social work of learning can continue outside the formal classroom. Institutions also should consider “well-integrated work environments that support collaborative projects and resource sharing” in virtual workspaces (Brown, 2005, p. 12.8). While not physical spaces, virtual learning environments such as Second Life and RuneScape are growing in popularity and in usage in higher education. This is in part due to their nature as visually rich, non-linear, and collaborative (Willems, 2008).

## **Conclusion**

Even though learning trends are described in generational terms, age may be less important than exposure to technology. “Individuals who are heavy users of IT tend to have characteristics similar to the Net Gen” (Oblinger & Oblinger, 2009, p. 2.10). With this in mind, it is important not to oversimplify when analyzing learners. “Differences among individuals are greater than dissimilarities between groups, so students in any age cohort will present a mixture of neomillennial, millennial, and traditional learning styles” (Dede, 2005, p. 15.19).

Instructors should recognize how values and experiences shape learning needs and expectations. Creating a positive learning environment will enhance “student learning and meets the needs of all adult learners” (Worley, 2011, p. 31A).

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