

Teaching and Learning with the Net Generation



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Before we begin: A caveat & an Invitation



- A caveat: Making generalizations about generations can be dangerous. But as Taylor (2005) notes, some generalizations can help in understanding generational cohorts
- An invitation: Please join me in making this session interactive.

A Generational Overview (Sweeney, 2008)



Generations	Birth Years	Ages in 2008
Silent generation	1901-1924	83-
Baby Boomers	1946-64	63-82
Generation X	1965-1978	30-44
Net Generation	1979-1994	14-29

Self-Check: Personal technology history



- When did you first:
 - learn to read and write?
 - read your first book?
 - use a computer?
 - start using email?
 - discover the World Wide Web?
 - play a video game(s)?
 - enter your first chat room
 - get a cell phone
 - text
 - participate in a virtual meeting or computer conference
 - join MySpace or Facebook
 - use /join/create any of the following: MOO or MUD, wiki, blog, podcast, MMORPG, Twitter, or other “new” media

Net Generation media history



- When do you think members of this generation first:
 - learned to read and write?
 - read their first books?
 - first used a computer?
 - started using email?
 - discovered the World Wide Web?
 - play their first video game(s)?
 - get their first cell phones
 - start texting
 - join MySpace or Facebook
 - use /join/create any of the following: MOO or MUD, wiki, blog, podcast, MMORPG, Twitter, or other “new” media

Acculturation to technology



- Reading among young adults has declined at an unprecedented rate (Hill, 2004)
- 20 % of NetGeners began using computers by the time they were 5- 8 years. Almost all were using computers by the time they were 16 -18 years (Jones, 2002)
- More than 70% of 4 year olds today have used a computer (Did You Know 2.0)

The Net Generation is all about technology



- Exponential growth of the Internet
 - 1984: 1000 internet devices
 - 1992: 1,000,000
 - 2008: 1,000,000,000
- Facebook reached 2 million users last week; up from 1 million users in August 2008
- There are 31 billion searches on Google every month today. In 2006 it was 2.7 billion
- The number of text messages sent/received every day exceeds Earth's population. (Did you know 3.0)

...and yet more technology



By the time he or she has reached 21 years of age, the average member of the Net Generation will have spent

- 10,000 hours playing video games,
- 200,000 hours on e-mail,
- 20,000 hours watching TV,
- 10,000 hours on cell phones, and
- under 5,000 hours reading (Bonamici et al., 2005)

Implications for Net Generation learners



- Media saturation and convenient access to digital technologies give the Net Generation distinctive ways of thinking, communicating, and learning (Oblinger and Oblinger, 2005; Prensky, 2006; Tapscott, 1998).
- What are some of the learning characteristics you've noticed in *your* Net Generation students?

Learning characteristics of *your* students



Positive

Example: They enjoy teamwork and peer-to-peer learning

Negative

Example: They are easily bored by lectures

Quick and dirty comparison of generational learning styles



- Boomers learn from formal classroom instruction. Their learning is textual and verbal, formal, linear, and deductive.
- Generation Xers adapt to both formal and informal learning. They like active learning and are more visual. Their learning can be both inductive and deductive, linear and non-linear.
- The Net Generation learns by connectivity and discovery. They are plugged into technology but learning is not about technology; it's about the learning technology enables. Learning is inductive and non-linear.

What the research shows about three Net Generation learning characteristics



The Net Generation learns differently from previous generations. They:

- Lean towards independence and autonomy
- Are habituated to media and multitasking
- Are socially oriented in their learning needs

[These characteristics are part of a larger picture, selected for no particular reason. To get a more complete description see Oblinger & Oblinger's excellent (2005) book]

What the research shows: Independence and autonomy in learning style



- Net Generation students learn better through discovery and experiential learning (Howe & Strauss, 2000; Hay, 2000)
- They have a need for immediacy and immediate gratification (Oblinger & Hagner, 2005)
- They want interactive learning experiences (Tapscott, 1998)
- They desire personally meaningful learning experiences (Glenn, 2000)

What the research shows: Media and multitasking



- The Net Generation is habituated to simultaneous use of multiple media (Oser, 2005)
 - They report using multiple media simultaneously, using computers and the Internet at the same time as video games, print media, music, and the phone
 - Young people aged 6-14 pack 8.5 hours of media usage into 6 hours (Kaiser Family Foundation, 2005)
- In the traditional classroom, they are easily bored and often display short attentions spans (Howe & Strauss, 2000; Oblinger & Hagner, 2005)

What the research shows: Social interactivity and learning



- For the Net Generation, the distinction between tools for fun/socializing and work study are blurred
- Social networking is their favorite pastime: socially and academically
- Academically, they enjoy collaboration
- Study sites like Cramster, Course Hero, Koofers and Enotes are impacting how these students study

Making the most of the Net Generation's learning style



- For educators there is hope in that this generation is very education-oriented
 - They are goal oriented and work hard towards their goals (Whitney-Vernon, 2004)
 - They value education as a step towards career success (Oblinger & Oblinger 2005)
- To help them learn we must learn to adapt our teaching styles to their learning needs
...or must we?

Strategies for successfully teaching and learning with the Net Generation



- What are some of *your* successes in today's classroom? Please take 10 minutes to share one strategy with your group. Be prepared to report back
- Group discussion (10 minutes)
- Whole group discussion

Strategies for successfully teaching and learning with the Net Generation



- Some additional “proven” strategies for successfully addressing the Net Generations’ learning style
 - Independence and autonomic learning
 - Use of media and multitasking
 - Social orientation

Some strategies for addressing independence and autonomy

- 
- Discovery and experiential learning
 - Need for immediacy
 - Interactive learning experiences
 - Personally meaningful learning experiences
 - First and foremost - reduce lecture time and incorporate more discussion
 - Provide opportunities for self-directed learning
 - Offer choice among assignments
 - Allow for multiple forms of feedback

[From Zheng & Ferris, 2009]

Some strategies for addressing media and multi-tasking

- Need for media

- Multitasking

[Note: potential for
disquieting cognitive
effects]

- First, utilize computers and technology well, and consistently
- Incorporate hypermedia learning (Tapscott, 1998) and interactive environments (Oblinger & Hagner, 2005)
- Don't forget to teach higher-order critical thinking and information literacy skills (Baron in Carlson, 2005; Barnes, Marateo & Ferris, 2007)

Some strategies for addressing social orientation

- Social networking: from Facebook and Twitter to IM, Texting, Wikis and Blogs

- If you're comfortable doing so, establish a presence on Facebook (or Twitter)
- If you'd rather not socially network yourself, you can still use social networking for pedagogy.
 - Use wikis in existing courses
 - Use Facebook academically (Eg., Micheal Kearns course on "the Networked Life" at Upenn)
 - Harness the power of texting (Eg., Hilary Wilder & Gerry Mongillo's cell phone based expository writing course at William Paterson)

Questions for group discussion (time permitting)



- Do these strategies incorporate higher order thinking?
- How important is “learning to learn” or “actual thinking” in the 21st century?
- What enduring elements of good teaching exist, independent of technology?

Where do you stand?

- While “...we will never understand or use the technology in precisely the same way as the Natives do” Prensky (2004) we must learn to “speak the language” if we are to remain successful as educators in the 21st century
- Naomi Baron (in Carlson, 2005) feels that reshaping our teaching to engage the Net generation is, at some point, “killing higher education” by failing to teach mental discipline, failing to teach them to think on their own, or to communicate their ideas clearly.

Addendum: You are not alone!



- Should you wish to start in a rooted model, several pedagogical models exist to help adapt teaching to the learning needs of the Net Generation.
- Selected examples:
 - Active learning
 - Experiential learning
 - Learner-centered teaching

Experiential learning (Kolb, 1984)

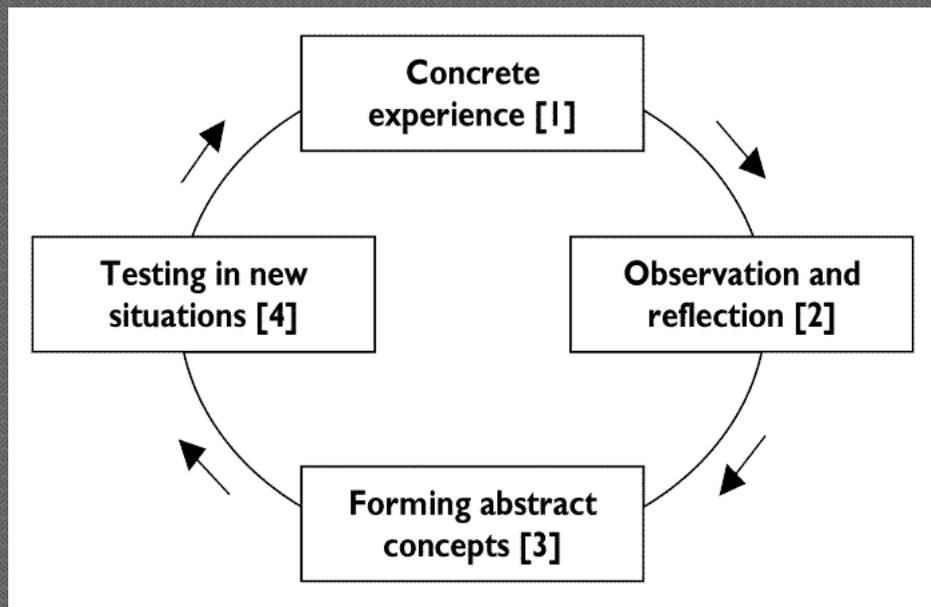


- The “learning by reflection on doing” model goes back to Aristotle
- Students are given a chance to acquire and apply knowledge, skills and feelings in immediate and relevant settings.
- Some related (but distinct) models of learning
 - Action learning
 - Cooperative learning
 - Service learning

Active learning (Bonwell & Eison, 1991)



- Focuses responsibility of learning on the learners
- Learning is active in that students are doing something - like discovering, processing, and applying information.



Learner-Centered teaching (Barr & Tagg, 1995)

Teaching-Centered

Deliver instruction

Transfer of knowledge from teacher to student

Active faculty

One teaching style

Curriculum development

Quantity and quality of resources

Learning-Centered

Produce learning

Discovery and construction of knowledge

Active students

Multiple learning styles

Learning technologies development

Quantity and quality of outcomes

Learner-Centered Model, continued.



Teaching-Centered	Learning-Centered
Quality of faculty	Quality of students
Time held constant; learning varies	Learning held constant; time varies
Learning is linear and cumulative	Learning is a nesting and interacting of frameworks
Promote recall	Promote understanding
Faculty are lecturers	Faculty are designers of learning environments

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