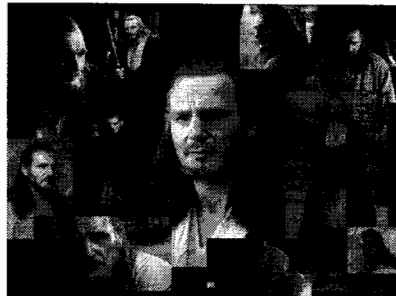


A Galaxy of Online Learning Style Ideas and Generational Learning Preference Comparisons

Curt Bonk, Professor, Indiana University
 President, SurveyShare, Inc.
 cjbok@indiana.edu
<http://php.indiana.edu/~cjbok>
<http://SurveyShare.com>



Addressing Learning Styles



Index of Learning Styles Questionnaire
 Barbara A. Soloman, North Carolina State Univ
<http://www.engr.ncsu.edu/learningstyles/ilsweb.html>



6. If I were a teacher, I would rather teach a course
- (a) that deals with facts and real life situations
 - (b) that deals with ideas and theories.
7. I prefer to get new information in
- (a) pictures, diagrams, graphs, or maps.
 - (b) written directions or verbal information.

Why Address Learning Styles?

- Promotes reflection on teaching
- Move from just one mode of delivery
- View from different viewpoints
- Offer variety in the class
- Might lower drop-out rates
- Fosters experimentation



Kolb (1984)



- According to Kolb, effective learning involves four phases:
 - from getting involved (Concrete Experience) to
 - listening/observing (Reflective Observation) to
 - creating an idea (Abstract Conceptualization) to
 - making decisions (Active Experimentation).
- A person may become better at some of these learning skills than others; as a result, a learning style develops.



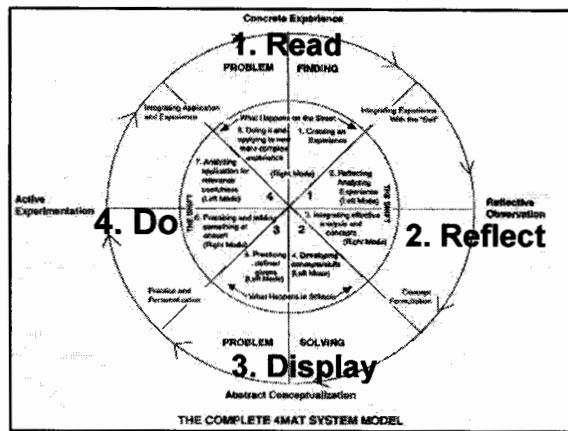
Abstract Conceptualization vs. Concrete Experiences

- (AC) - I am rational and logical.
- (CE) - I am practical and down to earth.
- (AC) - I plan events to the last detail.
- (CE) - I like realistic, but flexible plans.
- (AC) - I am difficult to get to know.
- (CE) - I am easy to get to know.



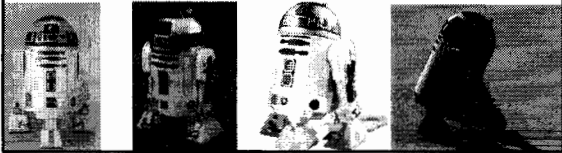
Active Experimentation vs. Reflective Observation

- (AE) - I often produce off-the-cuff ideas.
- (RO) - I am thorough and methodical.
- (AE) - I am flexible and open minded.
- (RO) - I am careful and cautious.
- (AE) - I am loud and outgoing.
- (RO) - I am quite and somewhat shy.



The R2D2 Method

1. Read (Auditory and Verbal Learners)
2. Reflect (Reflective Learners)
3. Display (Visual Learners)
4. Do (Tactile, Kinesthetic, Exploratory Learners)



1. Auditory or Verbal Learners

- Auditory and verbal learners prefer words, spoken or written explanations.

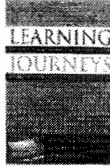


1a. Online Resource Libraries

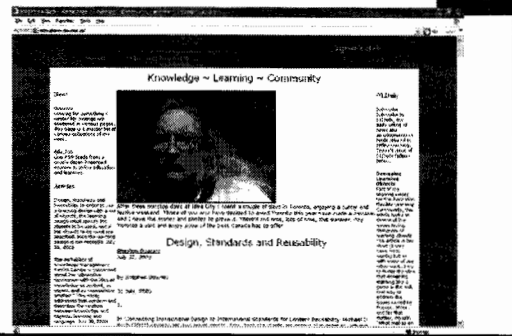
1b. Announcements, Q&A or FAQ

1c. Reflection Papers (3-4 page)

- Learning journeys
- Team reflection papers
- Trends in field papers
- Chat with expert reflections
- Job application papers
- Personal learning theory
- PMI, Pros and Cons, Muddiest pt



1e. Blogs (diaries, writing)



2. Reflective and Observational Learners

- Reflective and observational learners prefer to reflect, observe, view, and watch learning; they make careful judgments and view things from different perspectives



2a. Post Model Answers

Employment Law and Ethics Project

Question 1

Would it be legal for Lewis to recommend Billings instead of Lewis? Explain, being specific about the legal doctrines that would apply?

Answer 1

Under both Title VII of the 1964 Civil Rights Act and Section 1981 it is illegal to discriminate on the basis of race or color, and Lewis would likely win a lawsuit using the claim of disparate treatment if he were not recommended for the promotion. If Lewis does not recommend Lewis, she is guilty of violating the law. None of the three primary defenses—seniority, merit, or bona fide occupational qualification—apply to this situation since Lewis has higher seniority, equal skills, and more direct experience with power tools, than does the other candidate Frank Billings.

Title VII "prohibits discrimination based on race, color, religion, sex, and national origin in hiring, firing, job assignments, pay, access to training and apprenticeship programs, and most other employment decisions". ADEP is a covered entity under Title VII because they are "employing 15 or more employees and engaging in an industry affecting interstate commerce" and as the case footnote point out "as of November 21, 1991, the Civil Rights Act of 1991 extended protection from discrimination in employment to U.S. citizens working in foreign countries while employed by U.S. firms."

In this case, Title VII's disparate impact is not applicable since ADEP's policy clearly states to "promote the most

2b. Reuse Chat Transcripts

Chat Transcript Editor

City Talk Now

47. Week 9: Chat 4MAT with Bernice McCarthy March 10th from 5-6 pm

Chat Date: Posted on 05/25/04 11:24 PM
 Modified by Chat Book on 05/25/04 06:01 PM
 Total Answers: 65 View a list of users who have accessed this chat...

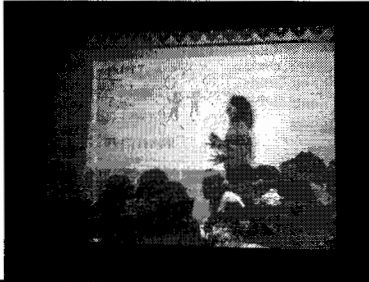
Click here to be 4MATed. This is a chat with Bernice McCarthy!

- Click here to see the chat transcript
- View the chat transcript in reverse chronological order
- View the chat transcript ordered by status

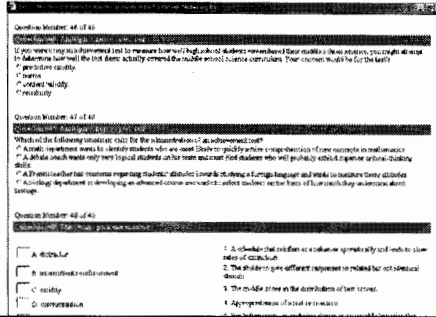
Attachments:

- chat_transcript.htm
- http://www.4mat.com/4mat/4mat.htm
- http://www.4mat.com/4mat/4mat.htm
- http://www.4mat.com/4mat/4mat.htm
- http://www.4mat.com/4mat/4mat.htm
- http://www.4mat.com/4mat/4mat.htm
- http://www.4mat.com/4mat/4mat.htm
- http://www.4mat.com/4mat/4mat.htm

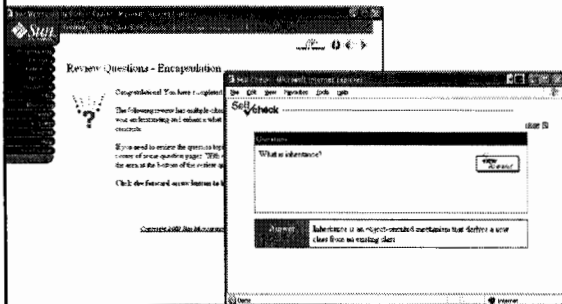
2c. Conferences with Live Video Feeds
 (Internet Time Group, 6/23/03)
<http://www.internettime.com/visual/gallery6.htm>



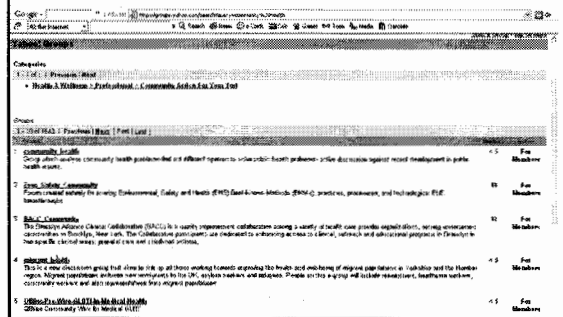
2d. Online Testing



2e. Learner-Content Interactions
 (Sun Microsystems)



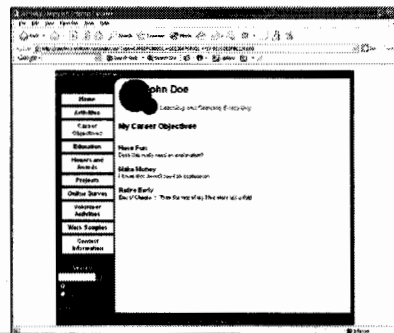
2f. Yahoo Groups:
 Lurk in an Online Group



2g. Watch Expert Performances Online
 (Music, Cyber Fashion Shows, etc.)



2h. Electronic Portfolios

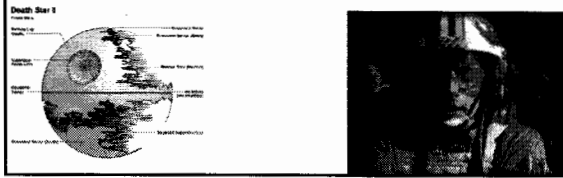


2i. Adventure Learning: Reality Teaching and Learning
(Andrew Revkin, New York Times, May 25, 2003)

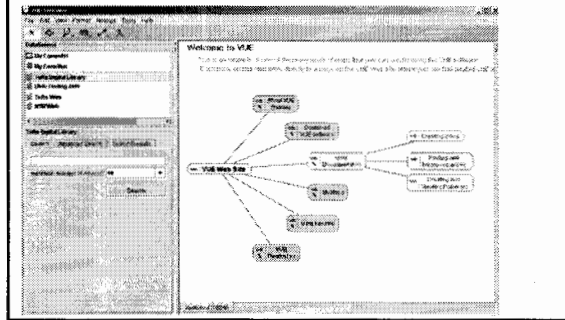


3. Visual Learners

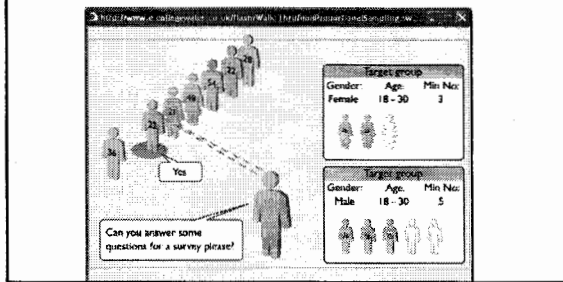
- Visual learners prefer diagrams, flowcharts, timelines, pictures, films, and demonstrations.



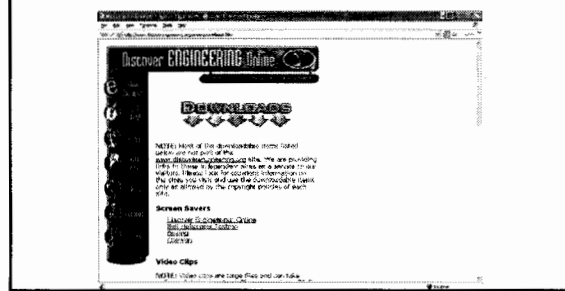
3a. Visual Understanding Environment (VUE) project from Tufts



3b. Flash Visuals and Animations (e.g., Statistics, Cash Flow, etc.)
eCollege Wales, Univ. of Glamorgan

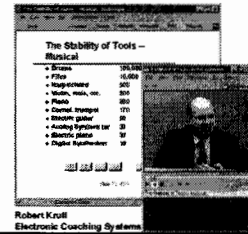


3c. Video Library of Concepts, Cases, or Experts

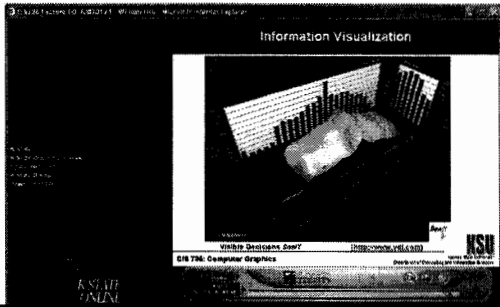


3d. Videostreamed Lectures and Expert Commenting (download before class or listen if missed)

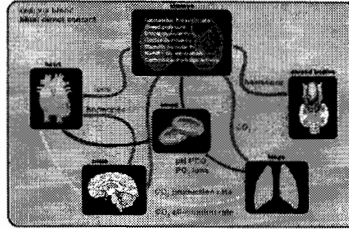
- Video streaming subscription services will take off in the next several years, according to a new study, which estimates that the market's value will reach \$4.5 billion in 2007 (Sept 23, 2003, Stephanie Olsen, CNet News.com).



3e. Visualization Software



3f. Flowcharts, Diagrams, Maps, etc.



Elements in the system for control of oxygenation in the human body (e.g., the Kidney): From: Next-Generation Educational Software Why We Need It and a Research Agenda for Getting It. Van Dam, Becker, & Simpson, *Educause Review*, March/April 2005

3g. Modeling through Video Clips of Experts

The screenshot shows a Wall Street Journal article titled 'Virtual Autopsy Scores Some Success'. The article discusses the use of virtual reality in forensic medicine. It includes a photograph of a person's face and text describing the technology and its potential for improving forensic investigations.

3h. Video Papers

The screenshot shows a video paper interface. It includes a video player window on the left and a text area on the right. The text area contains a paragraph of text, likely related to the video content. The interface is designed for presenting and interacting with video-based information.

3i. Digital Libraries

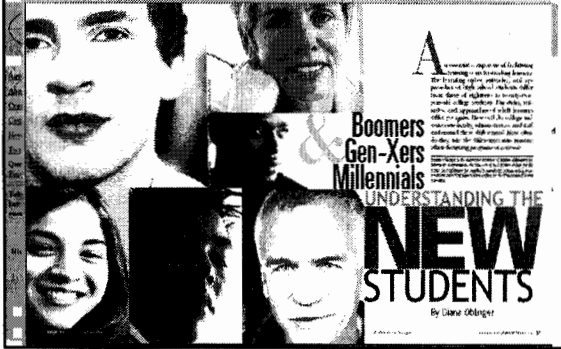
The screenshot shows a digital library website. It features a search bar at the top and a grid of search results below. Each result includes a thumbnail image and a brief description of the content. The website is designed for easy navigation and discovery of digital resources.

4. Tactile/Kinesthetic Learners

- Tactile/kinesthetic senses can be engaged in the learning process are role play, dramatization, cooperative games, simulations, creative movement and dance, multi-sensory activities, manipulatives and hands-on projects.



Generational Learning Styles



Generational Learning Styles

GENERATIONAL DIFFERENCES IN THE MILITARY

December 2003
Compiled by Debra Stegman
Bibliographer, All University Library
Marshall APB, AL

Contents

- [Military Education](#)
- [Enlist](#)
- [Disenlist](#)
- [Enlistment](#)

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Some articles behind paywall require access to subscription databases. If you cannot gain access, contact your local library for availability. All students and faculty can contact: libref@marshall.edu for assistance.

All sites last updated October 30, 2008

Internet Resources

Doyle, Matt. *Policy Landmines: Gen X Only: National Civic Review* 30:55 (Spring Fall 1997)
Topic about Generation Xers' experiences in education and labor, articles in the "New Student" database online at: <http://www.marshall.edu/~libref/edu/edu7.htm#003278.dsmch>

Age and Interaction Preferences

- Older people prefer less interaction than younger people in distance education (Kearsley, 1995).
- Older trainees prefer private implementation activities (i.e., individual learning), not small group discussions (Vampola, 2001).

Boomers, Gen-Xers, and Millennials: Understanding the "New Students", Diane Oblinger, Educause, July/August, 2003

Nontraditional Students:

- Delayed enrollment
- Attend part-time
- Work full-time
- Are financially independent
- Have dependents
- Are single parents
- Lack a high school diploma

The Generations

HIGHER EDUCATION, BLENDED LEARNING AND THE GENERATIONS: KNOWLEDGE IS POWER-NO MORE, Dziuban, Moskal, & Hartman (in review)

- Mature/Silent: prior to 1946
- Baby Boomers: 1946-1964 (or 1961)
- Gen Xers: 1965-1981 (or 1961-80)
- Millennials: 1982-??? (the new learner, the Net Generation, Generation Why?, Nexters, the Internet Generation)
- Neomillennials???

Generations: Dealing with Boomers, Gen-X, and Beyond

N. Boyce Appel, April 1, 2005, Practice Management Digest

Generalizations about Generations—Categorizations vs. Stereotypes

Generational Group	Born	Age	Stereotype
Silent Generation	1925 - 1942	61 - 78	Adaptive
Baby Boomers	1943 - 1960	43 - 60	Idealists
Thirteenth (Gen. X)	1961 - 1981	22 - 42	Reactive
Millennial (Gen. Y)	1982 - ?	13 - 21	Civic

**Boomers, Gen-Xers, and Millennials:
Understanding the "New Students", Diane
Oblinger, Educause, July/August, 2003**

Ten Attributes of the info age mindset:

- Computers are not technology
- The Internet is better than TV
- Reality is no longer real
- Doing is more important than knowing
- Learning more like Nintendo than logic
- Multitasking is a way of life
- Typing preferred over handwriting
- Staying connected is essential
- There is zero tolerance for delays
- Consumer and creator are blurring

Gen Xers in Workplace (the diffs)

N. Boyce Appel, April 1, 2005, Practice Management Digest

- **More collaborative and independent**
- **Less hierarchical**
- **More altruistic**
- **Good at dealing with change**
- **More comfortable with women bosses**
- **More skilled in management**

Gen Xers in Workplace (the diffs)

N. Boyce Appel, April 1, 2005, Practice Management Digest

- **More tech-savvy (the first real information-age generation)**
- **Candid in communication**
- **Self-reliant**
- **Rule-shy**
- **Not intimidated by authority**
- **Creative**
- **Strive for real balance between work and private life**
- **Desire workplaces that feel like communities**

Gen Xers in Workplace (worst things)

N. Boyce Appel, April 1, 2005, Practice Management Digest

- **Fear-based environment**
- **Poor time management**
- **Micromanagement**
- **Politically based culture**
- **Indirect communication**
- **Opinions and ideas ignored**
- **Prevalence of lip service, not action**

Gen Xers in Workplace (worst things)

N. Boyce Appel, April 1, 2005, Practice Management Digest

- **Failure to give feedback and regular performance reviews**
- **Meaningless raises**
- **Insincere, gratuitous "thank you's"**
- **People thrown into jobs without training**
- **Disorganized, cluttered, or dirty workplace**
- **Not telling the "why's"**
- **"Because I said so" or similar attitudes**
- **Unacceptable staff behavior overlooked.**

Gen Xers in Workplace (best things)

N. Boyce Appel, April 1, 2005, Practice Management Digest

- **Team-based management**
- **Diversity**
- **Exploration**
- **Experimentation**
- **The idea is the power, not the person**
- **Team and individual credit**
- **"Resume building" opportunities.**

Gen Xers in Workplace (best things)

N. Boyce Appel, April 1, 2005, Practice Management Digest

- Appreciate us. Show you care.
- Be flexible. Let us have a life beyond work.
- Create a team. Give us the family we never had.
- Develop us. Help us to increase our skills.
- Involve us. Ask our opinions.
- Lighten up. Remember, it's not brain surgery.
- Walk your talk. Practice what you preach.

Gen Xers

(Neil Yamashiro, 1998, US Army National Guard)

- Cynical, have different values, distrust older generation, have a distorted view of reality, spent a lot of time alone, products of divorce, competitive, do not feel loyalty to an organization, believe in getting what they can—situational ethics, desire instant gratification without having to work for it, independent

K. McClure

"Can Generation Xers Be Trained?"

Training & Development, March, 1997

Likes	Dislikes
Honesty	Hearing about the past
Feedback (praise & suggestions for improvement in real time)	Inflexibility
Visuals	Over-managed & not allowed to think
Speak in plain terms	Disparaging comments about their generation
Continuous development	Disrespect by not making the point clear
Balance between work and personal time	Judged by the number of hours worked
Focus on results	Focus on technique
Involvement in decisions	Bureaucratic layers of approval
Fun - celebrate the successes	No recognition or rewards

Generation Xers

The Bresnahan Group 2000

- One thing Generation Xers don't like is being called "Xer!" This is due to a lot of negative publicity.
- So, are Generation Xers the lazy, whining, cynical, disloyal, arrogant, scatterbrained people they are purported to be?

Generation Xers

The Bresnahan Group 2000

- They look for a manager who will coach and develop them, invite them to contribute, and recognize their efforts. If this atmosphere is not provided, they will leave when the opportunity presents itself.

Generation Xers

The Bresnahan Group 2000

- Xers regard companies as places to grow, not places where they will grow old. Their focus is on gaining skills and knowledge that will qualify them for the next job.

Generation Xers
The Bresnahan Group 2000

- They focus on the end results, therefore it is important to know upfront why information is needed. They like to be involved and look to control their own destinies. They resent and resist being force-fed.

Boomers, Gen-Xers, and Millennials:
Understanding the "New Students", Diane Oblinger, Educause, July/August, 2003

Some ideas that might help:

- Personal assistants
- Web portals
- Customized e-mail—instant responses
- Online help desk--expect 24 x 7 support
- Tutors



Boomers, Gen-Xers, and Millennials:
Understanding the "New Students", Diane Oblinger, Educause, July/August, 2003

Millennials:

- Gravitate toward group activity
- Identify with their parents' values and feel close to their parents
- Spend more time doing homework and housework and less watching TV
- Believe it is cool to be smart
- Are fascinated by new technologies
- Are racially and ethnically diverse
- Often (one in five) have at least one immigrant parent

Boomers, Gen-Xers, and Millennials:
Understanding the "New Students", Diane Oblinger, Educause, July/August, 2003

Millennial Learning Preferences:

- Teamwork
- Experiential activities
- Structure
- Use of technology

Boomers, Gen-Xers, and Millennials:
Understanding the "New Students", Diane Oblinger, Educause, July/August, 2003

Millennial Learning Preferences:
(study of students age 12-17)

1. Email—81 percent
 2. Instant messaging—70 percent
 3. Internet for research—94 percent
 1. Also blogs, PDA, cell phones, wikis, etc.
- University students:
1. Own a computer—84 percent

Millennials Least Favorable to Blended—Why?

HIGHER EDUCATION, BLENDED LEARNING AND THE GENERATIONS:
KNOWLEDGE IS POWER—NO MORE, Dzliban, Moskal, & Hartman (in review)

Perhaps cannot relate to technologies offered to these students. Millennials say:

"I spend more time reading and reviewing without the professor telling me everything there is to know."

"I respect myself more as a self-teacher."

"Learning that takes place in the classroom isn't as important as time studying on your own."

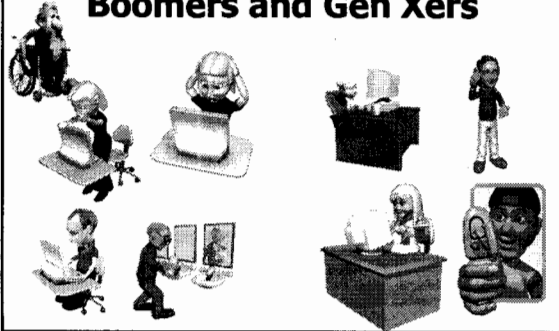
"Online gives me something to do when I'm bored with the professor."

Boomers, Gen-Xers, and Millennials: Understanding the "New Students", Diane Oblinger, Educause, July/August, 2003

Questions

- Is IM a fad or important for learning?
- Provide resources or sims, games, collab?
- Will anytime access mean PDAs, cell phones, etc.?
- Does preferences for group learning impact your activities?

Differences between Boomers and Gen Xers



Independence: Boomer (from

Learning: Generation Does Matter, Leslie Darling,
CLO, Element K, CLO Magazine, April 2, 2005?)

- When I first developed the workshop, theories on independent learning, learner-centered principles and experiential learning seemed like common sense to me...

Independence: Boomer (from Learning: Generation Does Matter, Leslie Darling, CLO, Element K, CLO Magazine)

- Dependence on instructor or authority figure to define and support learning.

Independence: Xer (from Learning: Generation Does Matter, Leslie Darling, CLO, Element K, CLO Magazine)

- Having grown up for the most part with both parents working/furthering their education, Xers are used to getting things done on their own. Hence, they tend to be independent problem solvers and self-starters. They want support and feedback, but they don't want to be controlled. (Brown, Bettina Lankard, 1997)

Technology: Boomer (from Learning: Generation Does Matter, Leslie Darling, CLO, Element K, CLO Magazine)

- Most boomers became aware of computer technology later in their education or in their careers. The computer is seen as a "nice to have" tool to do things they used to do manually or with paper and pencil. The translation of "how would I do this with the computer" is usually made.

Technology: Xer (from Learning: Generation Does Matter, Leslie Darling, CLO, Element K, CLO Magazine)

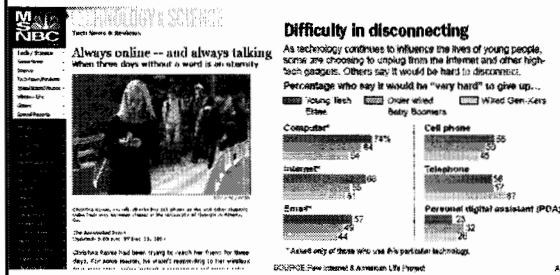
- Generation Xers are technologically literate because they grew up with computers as part of their working world. They consider computer technology as a "need to have," not a "nice to have." Technology is an expected way of accessing information.

Students Returning to Campus with High Tech War Chest
Syllabus Magazine, August 24, 2004

- 90% own computer (65% broadband connect)
- 86% a calculator
- 84% a television
- 77% a cell phone
- 77% a printer
- 74% a DVD player
- 70% play games with phone
- 62% own a stereo
- 62% of 18 to 24 yr old text message with phone
- 55% own a gaming system.
- 41% with cell phones access Internet



Demand for Internet in US
(Special MSNBC report, Dec 13, 2004)



Generation Raised on the Internet Comes of Age, MSNBC, Dec., 13, 2004, Martha Irvine

- For 21-year-old William Herbert, the Internet has replaced newspapers and TV weather reports (he visits Weather.com every morning). He pays his bills online, registers for classes, books airline and train tickets, checks TV listings, buys movie tickets and gets travel directions.



With this Enrollment, a Toy Surprise
(Chronicle of Higher Ed, September 17, 2004, A29; Duke gets iPod; MBA students at Maryland get Blackberrys)



Simulation: Boomer

- Life experienced at a slower pace promotes an expectation of "it's ok to wait." Learning experienced from an early age as lecture with drill and practice without stimulation/response. Gaming as part of a learning context may be considered less effective because it is less "serious" and in some cases can be distracting.

Simulation: Xer

- Conditioned to expect immediate gratification (they grew up with drive-through fast food, remote controls, automatic teller machines and microwave ovens), and an expectation that learning should be stimulating and fun (Sesame Street). Generation Xers crave stimulation and expect immediate answers and feedback.

Exploratories: Highly Interactive Simulation Applets Next-Generation Educational Software: Why We Need It and a Research Agenda for Getting It

Van Dam, Becker, & Simpson, *Educause Review*, March/April 2005

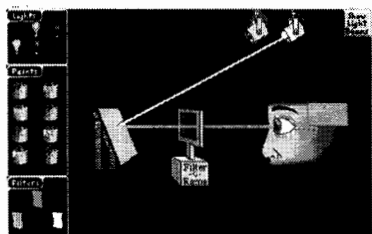


Figure 1. Exploratory on color mixing, highlighting the differences between mixing light and mixing paint

ChemPad (help students see 3D structure of molecules) Next-Generation Educational Software:

Why We Need It and a Research Agenda for Getting It
Van Dam, Becker, & Simpson, *Educause Review*, March/April 2005

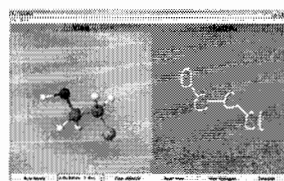


Figure 3. The ChemPad program displays an organic molecule, 2-chloro-ethanol. On the right side, the user has sketched the non-hydrogen atoms of the molecule using standard organic chemistry conventions. On the left side, the program has generated and rendered a 3D representation and examine it from arbitrary points of view.

Course Activities with Online Demos (e.g., simulation, games, experiments, examples)

A screenshot of the PSYCHEXPERIMENTS online demo interface. The top left corner has the title "PSYCHEXPERIMENTS" and a subtitle "Psychology of Perception Experiments". Below this, there are several panels. One panel shows a 3D molecular model. Another panel shows a graph with a curve. There are also various buttons and text boxes, suggesting an interactive learning environment. The overall layout is clean and organized.

Simulation: Xer

- To older generations, "Xers seem impatient for answers, always demanding information, asking questions, and pursuing multiple lines of enquiry simultaneously. What looks to some [adults] like a lack of attention in Xers is, rather, a rapid-fire style of interacting with information which comes naturally to us as children of the information revolution." (Tulgan, 1995:173)

Simulation: Xer

- Genxers have a rapid-fire information consumption capability. Rushkoff argues that many of the things for which this generation is maligned, such as short attention spans and lack of ability to concentrate on a single task at once are not problems but actually brilliant coping mechanisms for a world overloaded with information.

TECHNOLOGY

HeadlineNews BUZZ FACTOR WEEKLY NEWS

The screen-age: Our brains in our laptops

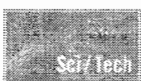
By Christine Bossa
CNN Headline News
Monday, August 2, 2004 Posted: 1:57 GMT (2:17 HKT)

(CNN) — When I taught at a university, I worked with the wireless laptop programs that are replacing computer labs on campuses.



The Web has become an essential part of checking facts and figures for students while they do their homework.

Once students began carrying laptops everywhere and using them in class, an interesting dependency developed. There were times in class when I asked a question and students would glance helplessly at the machines, as if to say, "The answer isn't in my carbon-based brain, but I know I got it right here, on silicon."



Sci/Tech > Computers & Technology
from the September 09, 2004 edition

- COMPUTERS & TECH
 - ENVIRONMENT
 - INTERNET
 - SCIENCE & SPACE
- Also see:
- CHALLENGE EXTENDING
 - CHALLENGE DEEP SPACE
 - CHALLENGE SCIENCE-BLOG
 - CHALLENGE LIBLOG

In this week's Sci/Tech section:

- Sun may rise, after all, on faulty space probe
- Veil of secrecy to lift on drug tests
- In cyberspace, new rules for your résumé



UNWIREIT: IT staffer Gang Luo (left) helped Erin Shanley (far right) configure her PC for wireless computing at Bridgewater State College, where all freshmen must have laptops this fall.

Colleges weigh new prerequisite: A laptop in every backpack

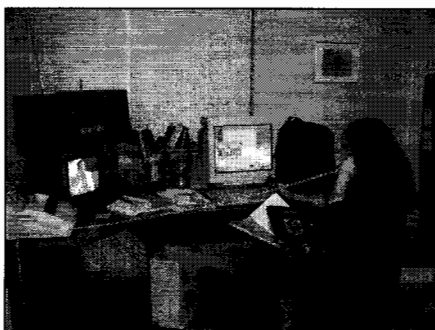
By Sara B. Miller | Staff writer of The Christian Science Monitor

BRIDGEWATER, MASS. — As college freshmen head off to campus this year, they're toting cellphones in one pocket, iPods in another. And that click-clack you hear isn't the jingle of new dormitory keys — it's their fingers pounding instant messages back and forth.

Simulation: Xer

- "The skill to be valued in the twenty-first century is not the length of attention span, but the ability to multitask - to do many things well at once.... [and] the ability to process visual information very rapidly." (Rushkoff, 1996:50)

Millennial Multitasking



The Chronicle

NEWS

March 23, 2007

Drexel gives out iPods to education students

THE CHRONICLE is the highest rated news source for students.

Connect Networks and hand out iPods to education students.

THE CHRONICLE is the highest rated news source for students.

Connect Networks and hand out iPods to education students.



Students use iPods to listen to lectures.

KATHLEEN KOWNACKI/THE CHRONICLE
Students in an economics lecture in Griffith Film Theater record lectures with their iPods

Relevance: Boomer

- Learn "what" or "how" first, and the "why" may come later as part of experience.

Relevance: Xer

- "What's in it for me?" is a question to which Gen Xers require the answer before they take the time to learn what or how.

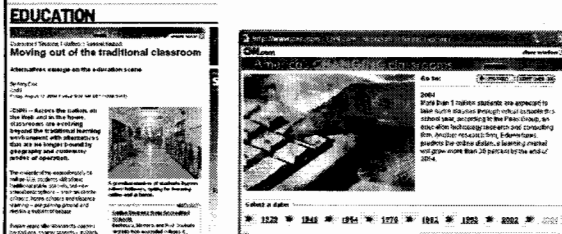
Lifelong Learning: Boomer

- An expectation of working in the same organization for the life of your career. The concept of learning is based on specific events (college education, specific training programs).

Lifelong Learning: Xer

- Generation Xers do not expect to grow old working for the same company, so they view their job environments as places to grow. Learning is considered a continual process. They seek continuing education and training opportunities; if they don't get them, they seek new jobs where they can continue learning!

- The Peak Group, an educational consulting firm, estimates that more than 1 million American high school students are currently taking Internet courses, up from 571,000 last year and 378,000 the year before.
 - More students log on to learn, Boston.com, Peter Schworm, September 16, 2004.



Learner Control: Boomer

- The traditional instructor-focus is what is expected. The instructor determines what is important to learn and how it should be learned. Consistency and control are maintained with the "tell me, tell me, tell me" approach.

Learner Control: Xer

- Xers expect a range of options, in terms of what they learn and how they learn it. They require autonomy and flexibility for their own learning. They demand a variety of instructional methods from which they can choose to learn, e.g., videotapes, self-paced modules, interactive CDs.

Use those iPods

- Practice foreign language dialects
- Record scripts for theater classes
- Analyze music in engineering labs
- Digitally record own radio shows
- Tape writing center tutoring sessions
- Access portal of university info
- Record lectures

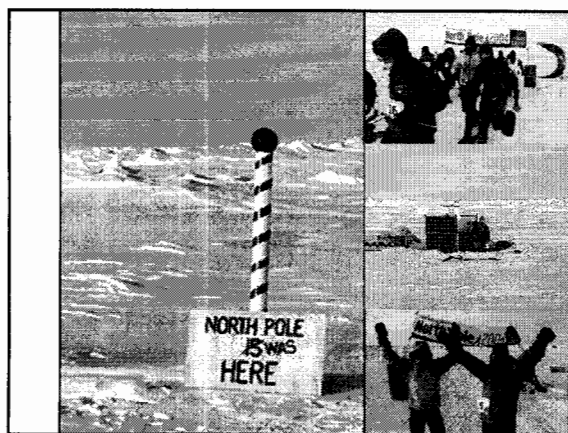


Comfort with Unknown: Boomer

- Discomfort is avoided. If I don't know how, I ask for assistance. "Trying it on your own" activities are not the norm.

Comfort with Unknown: Xer

- As illustrated by their involvement in extreme sports such as bungee jumping and sky surfing, Generation Xers are fearless. (Brown, Bettina Lankard, 1997)
- Hand-holding and baby steps are not expected and in some cases resented. Challenge is expected more than comfort.



Neomillennial Learning Styles

Planning for Neomillennial Learning Styles: Implications for Investments in Technology and Faculty
Chris Dede, Harvard University

- Blended/personalized places (not specialized computer labs)
- Mobile wireless computing
- Avatars and personal agents
- Smart objects
- Virtual worlds
- Augmented reality



Neomillennial Learning Styles

Planning for Neomillennial Learning Styles: Implications for Investments in Technology and Faculty
Chris Dede, Harvard University, Educause, 2005

- Fluency in multiple media—value all types of communication, activities, experiences, rather than working in a single best medium
- Actively seek, collect, and synthesize experiences, rather than absorb a single best source
- Active learning with opportunities for collective reflection
- Non-linear and associated webs of learning rather than linear stories
- Co-design of learning experiences personalized to individual needs and preferences instead of pre-customized

Digital Movies of Campus Life

Ah, Shoot

Teachers at the University of Wisconsin-Madison are making digital video stories.

Introduction

The digital video stories are a new way of sharing information. They are a mix of text, images, and audio. They are a way of sharing information that is not possible with traditional media. They are a way of sharing information that is not possible with traditional media.



Future of Cognition

Planning for Neomillennial Learning Styles: Implications for Investments in Technology and Faculty
Chris Dede, Harvard University

- Seeking, sieving, synthesizing disparate sources of data
- Multitasking among disparate experiences and information sources
- Focus on associative interconnections among chunks of information
- Constant reflection on and sharing of experience
Mind extended via distributed cognition, sensation, memory
Current = find and assimilate information

Future of Instruction

Planning for Neomillennial Learning Styles: Implications for Investments in Technology and Faculty
Chris Dede, Harvard University

- Learners influence design of content, pedagogy, and assessment based on individual preferences and needs
- Knowledge sharing among students as a major source of content
- Guided social constructivism and situated learning as major forms of pedagogy
- Case-based participatory simulations complement presentational/assimilative instruction
– Current = passive, one size fits all

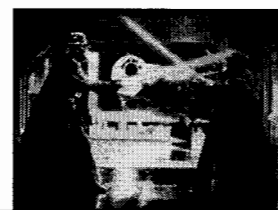
Future of Assessment

Planning for Neomillennial Learning Styles: Implications for Investments in Technology and Faculty
Chris Dede, Harvard University

- Student products often involve nonlinear, associational webs of representations (e.g., authoring a simulation and a Web page to express understanding of an internship rather than authoring a paper that synthesizes expert opinions)
- Peer-developed and peer-rated forms of assessment complement faculty grading, which is often based on individual accomplishment in a team performance context
- Assessments provide formative feedback on instructional effectiveness
 - Current = tests, grades, summative feedback

What have you mastered?

•Stand and Share



Questions and Answers...???

