

Virtual schooling and online learning: Michigan education in a flat world

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Agenda

1. Today's Student
2. Distance Education in the K-12 Environment
3. Virtual Schooling
 - a) Canada, the United States and elsewhere
 - b) How does it work here in Michigan?
 - c) Does it work?




Generational differences: the theory that people born within an approximately 20 year time period share a common set of characteristics based upon the historical experiences, economic and social conditions, technological advances and other societal changes they have in common




Generational Boundaries

- GI Generation “Greatest Generation”
 - Born between 1901 and 1924
- Silent Generation
 - Born between 1925 and 1945
- Baby Boomers
 - Born between 1946 and 1964
- Generation X
 - Born between 1965 and 1980
- Today’s Student
 - Born between 1981 and 2000




This Generation’s Numbers

- 60 million - largest group since the Baby Boomers (72 million)
- 3 times larger than Generation X
- Teen population is growing at twice the rate of the rest of America
- Made up 37% of U.S. population in 2005



Today’s Student

- Generation Y
- Net Generation
- Neomillennials
- Millennials
- Digital Natives



Today’s Student: Which fit you?

Gamers	Digital Natives	Socially Conscious	Disdain Previous Generations
High Expectations	Spoiled Rotten	Respect Intelligence	Value Diversity
Expect Incomes Exceeding Parents	Experiential Learners	Optimistic and Positive	Family Oriented
Collaborative	Nomadic	Inclusive	Have More Friends
Healthy Lifestyle	Clueless	Direct	More Liberal
Achievement Oriented	Media Consumer	Patriotic	More Conservative
Value Balanced Lives	Multi-tasker	Confident	Entitled

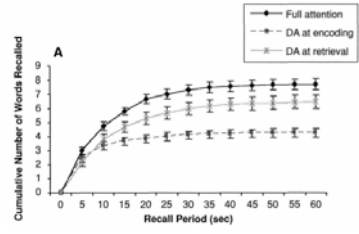
Millennials / Digital Natives

- Most common in the media
- Little basis in research
- Makes unfounded assumptions

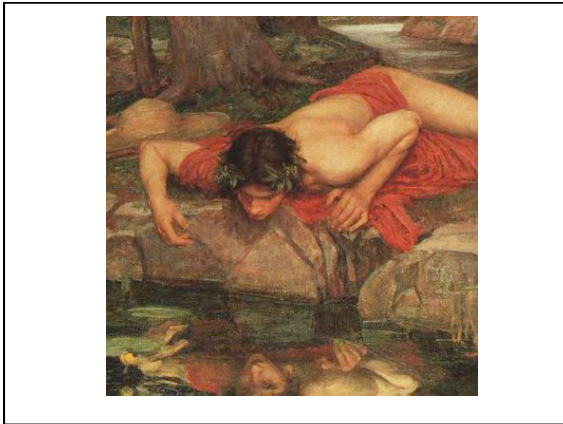


Master Multitaskers

- Memory encoding and memory retrieval weaker in teens when attention is divided



Naveh-Benjamin, M., Kilb, A., & Fisher, T. (2006). Concurrent task effects on memory encoding and retrieval: Further support for an asymmetry. *Memory & Cognition*, 34(1), 90-101.




Why Today's Young Americans
Are More Confident, Assertive, Entitled—
and More Miserable Than Ever Before

“Today's young people have been raised to aim for the stars at a time when it is more difficult than ever to get into college, find a good job, and afford a house. Their expectations are very high just as the world is becoming more competitive, so there's a huge clash between their expectations and reality.”

Generation Me


Jean M. Twenge, PhD.

- In 2002, 74% of high school students admitted to cheating whereas in 1969 only 34% admitted such a failing. (p. 27)
- In 1967, 86% of incoming college students said that “developing a meaningful philosophy of life” was an essential life goal whereas in 2004 only 42% of GenMe freshmen agreed. (p. 48)
- In 2004, 48% of American college freshmen reported earning an A average in high school whereas in 1968 only 18% of freshmen reported being an A student in high school. (p. 63)
- In the 1950s, only 12% of young teens agreed with the statement “I am an important person” whereas by the late 1980s, 80% claimed they were important. (p. 69)




Jean M. Twenge

Traditional K-12 Distance Education



Correspondence Education

- British Columbia (Canada) in 1919
- The Correspondence School (New Zealand) in 1922
- UNL (United States) in 1929



Educational Radio

- Used extensively in mid-western United States (1929 – Ohio / 1931 – Wisconsin) and Australia (1948)
- Still in use today in many African nations



Instructional Television

- Matured in the United States with the Midwest Program on Airborne Television Instruction in 1961
- Used primarily as a supplement to traditional face-to-face teaching



Telematics

- Used extensively in Australia and Canada
- Pre-cursor to computer-based distance education



Origins of Virtual Schooling

Canada

- district-based schools began in Alberta in 1995-96
- private Virtual High School began in Ontario in 1996
- district-based consortiums in Ontario followed shortly thereafter

United States

- federal grant created Virtual High School Global Consortium in 1996-97
- FLVS created by state in 1996-97
- Utah creates e-School in 1996-97

In Canada...

Single provincial virtual school

Limited district-based virtual schools

Extensive district-based virtual schools

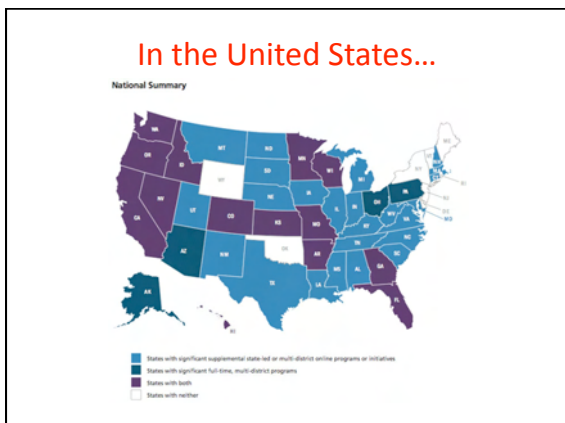
Both district-based and private virtual schools

Use district-based virtual schools in other provinces



Canada – The Numbers

- Newfoundland and Labrador – 1688 enrollments in 2005 & 1484 enrollments in 2007 (about 900 students both year)
- New Brunswick – average of 1400-1500 online students per semester & 800-1000 blended students over past three years
- Ontario – 8200 courses taken by over 7700 students from the provincial LMS (another 500 students are estimated to be enrolled in district-based LMSes)
- British Columbia - 17,000 students in 2006 to 33,000 in 2007

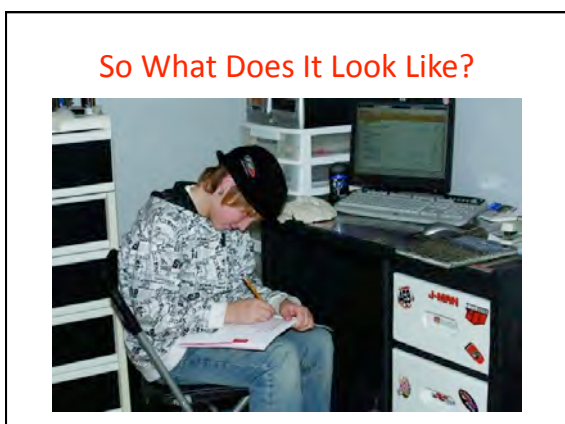


- ### United States – The Numbers
- 40,000 to 50,000 enrollments (Clark, 2001)
 - 328,000 students in online or two-way video courses (Setzer & Lewis, 2005)
 - 139,000 students in online courses (Gray & Tucker, 2006)
 - 700,000 students in online courses (Picciano & Seaman, 2007)

- ### Elsewhere in the World...
- China
 - less than 1%
 - Iran
 - many private companies offering MOE approved courses
 - Japan
 - one correspondence school offering online courses
 - Mexico
 - state sponsored virtual schools
 - Singapore
 - online and blended learning is pervasive
 - Turkey
 - pilot began in 2005-06 with 300,000 and hope to have 12,000,000 taking online courses by 2010
- No real other virtual school initiatives as we know it here in the US

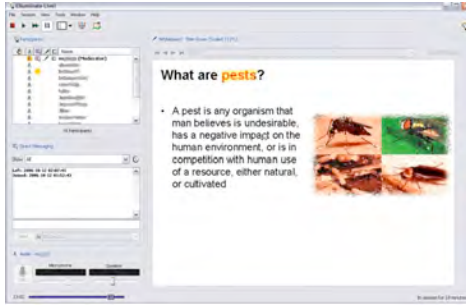
- ### US Virtual Schools Reaching Out
- VHS^{inc.}

Florida
VirtualSchool
Global Services
- 296 courses
 - 39 schools in 31 countries
 - 80 courses
 - schools from 11 countries

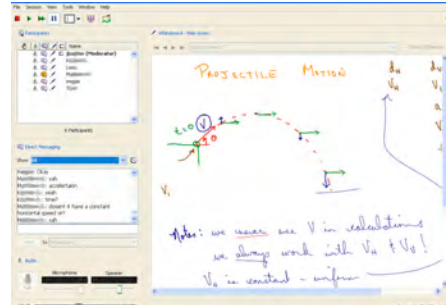


- ### Here in Michigan...
- #### Michigan Virtual School
- Flex Courses
 - Guided by Michigan teachers
 - Can enroll anytime, but have fixed end dates
 - Semester, trimester and summer session
 - Semester Courses
 - Primarily taught asynchronously by Michigan teachers
 - Can enroll anytime, but have fixed end dates
 - Semester, trimester and summer session
 - Student Direct Courses
 - Supervised by school-based teacher
 - Can enroll anytime, 90 days to complete

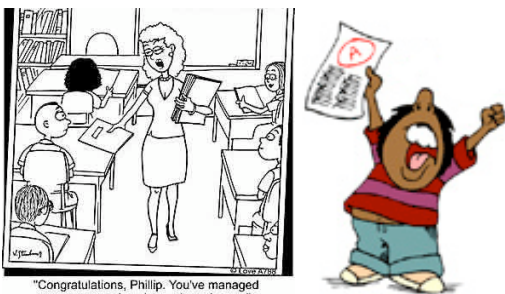
Synchronous Instruction



Synchronous Instruction



But How Do Students Perform?



Student Performance

- performance of virtual and classroom students in Alberta were similar in English and Social Studies courses, but that classroom students performed better overall in all other subject areas (Ballas & Belyk, 2000)
- over half of the students who completed FLVS courses scored an A in their course and only 7% received a failing grade (Bigbie & McCarroll, 2000)

Student Performance

- there was "a small positive effect in favor of distance education" at the K-12 level (Cavanaugh, 2001)
- students in the six virtual schools in three different province performed no worse than the students from the three conventional schools (Barker & Wendel, 2001)

Student Performance

- IVHS had a completion rate of 53% its first year of operation and 80% the following (Clark et al., 2002)
- a small negative effect size in their meta-analysis of K-12 distance education (Cavanaugh et al., 2004)

Student Performance

- FLVS students performed better on a non-mandatory assessment tool than students from the traditional classroom (Cavanaugh et al., 2005)
- CDLI students performed as well as classroom-based students on final course scores and standardized exam marks (Barbour & Mulcahy, 2007; 2008)

Student Performance

- FLVS students performed better on an assessment of algebraic understanding than their classroom counterparts (McLeod et al., 2005)
- the completion rate for the ALDC was 47% for their asynchronous courses and 89% for their combination asynchronous & synchronous courses (Illuminate, 2006)

The Students

- the vast majority of VHS Global Consortium students in their courses were planning to attend a four-year college (Kozma, Zucker & Espinoza, 1998)
- “VHS courses are predominantly designated as ‘honors,’ and students enrolled are mostly college bound” (Espinoza et al., 1999)

The Students

- the preferred characteristics of K-12 students involved in virtual schooling to include the highly motivated, self-directed, self-disciplined, independent learner who could read and write well, and who also had a strong interest in or ability with technology (Haughey & Muirhead, 1999)
- between 25% and 50% of students had dropped out of their FLVS courses over the previous two-year period (Bigbie & McCarroll, 2000)

The Students

- participation rate in the assessment among virtual students ranged from 65% to 75% compared to 90% to 96% for the classroom-based students (Ballas & Belyk, 2000)
- “only students with a high need to control and structure their own learning may choose distance formats freely” (Roblyer & Elbaum, 2000)

The Students

- IVHS students were “highly motivated, high achieving, self-directed and/or who liked to work independently” (Clark et al., 2002)
- the typical online student was an A or B student (Mills, 2003)
- the differences in performance was due to the high dropout rate in virtual school courses (McLeod et al., 2005)

The Students

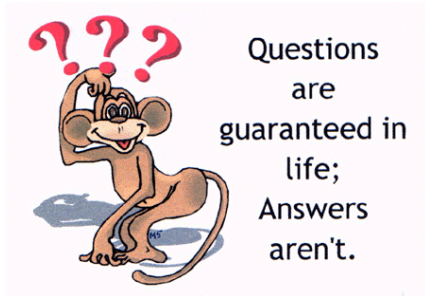
- 45% of the students who participated in e-learning opportunities in Michigan were “either advanced placement or academically advanced” students (Watkins, 2005)
- speculated that the virtual school students who did take the assessment may have been more academically motivated and naturally higher achieving students (Cavanaugh et al. 2005)

The Challenge

- whether web-based distance education can be suitable for all secondary level students (Mulcahy, 2002)



Questions / Comments



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