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Generational Shift: Why We Should Modify Our Instructional Strategies for the Next Generations of Aviators

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Generational Shift:

Why We Should Modify Our Instructional Strategies for the Next Generation of Aviators

Mary Niemczyk, PhD
NTAS 2017
Overview

• Generational Cohorts
• Characteristics of the Millennial Generation
• 4 A’s of Learning
• Instructional Strategies (Gagne’s 9 Events)
• What Millennials Say They Need for Success
They’re here…

75.4 million

Surpassed Baby-Boomers 74.9 million
Differences between generations can be the by-product of unique historical circumstances that members of an age cohort experience, particularly during a time when they are in the process of forming opinions.

- Pew Research Center
Generational Cohorts

• Veterans (1922 - 1943)
• Baby Boomers (1944 - 1964)
• Generation X (1965 - 1980)
• Gen Z (2001 -

Generational characteristics tend to be fixed
Millennials
1981 - 2000

GRADE INFLATION

AVERAGE
OVER AVERAGE
COMPLAIN UNTIL YOU GET A BETTER GRADE
THE DEAN GETS INVOLVED
FILE LAWSUIT
INCOMPLETE DENIAL

A+ excellent!

NOW
LATER
Attention spans diminishing
2000 = 12 seconds
2013 = 8 seconds

Neuroscientists are concerned about the long term effect of technology – lazy & shallow thinking

Flattened world – unlimited access

Immediate access to just about everything

Creating a 'brand'

FOMO – dopamine
HIGH SCHOOL

Almost 40% of high school graduates are not adequately prepared for entry level jobs or college courses.

Overuse of standardized tests is changing the nature of teaching, narrowing the curriculum, and limiting student learning.

There is no requirement for consistency among high school courses. For example, Algebra II courses may be closer in content to Algebra I.

Almost 40% of high school graduates are not adequately prepared for entry level jobs or college courses.
Most educated generation = higher student debt ($27K average)

Fewer individuals read books which leads to a decline in the skills necessary to read long passages of text

More than 36% of first-year college students reported taking some remedial coursework - especially math

PIAAC results (22 countries):
**Literacy** - US millennials scored higher than only 2 countries – Spain & Italy
**Numeracy** - ranked last, along with Spain & Italy
**Problem Solving** - also ranked last, along with the Slovak Republic, Ireland, & Poland
ECONOMY

Higher levels of student loan debt, poverty and unemployment

Lower levels of wealth and personal income than their 2 immediate predecessor generations had at the same age

A tough labor market & high debt levels postponing major decisions

Shifting societal norms about when adulthood begins
What Can Educators Do?
Developing Millennial Learners

4 A’s Of Learning

01
- Active
- Awareness
- Anticipate
- Associate

02
Micro-Learning
- Short, digestible, well-planned units

03
Industry
- Mentorship
- Share the ‘why’
- Continuous development
4 A’s of Learning
Active

**Instructor**
- Gain the learner’s attention
- Stimulate interest
- Make learners aware of what to expect so that they are prepared to receive information
  - What is the learning objective?

**Learner**
- Be engaged
- Develop a plan
  - Establish learning/study goals
  - Determine strengths/weaknesses
- Ensure focus on learning objectives – levels of mastery
Instructor
- Assist learners in remembering what they may already know about the concept/procedure
  - Remind them of prior knowledge

Learner
- ‘What do I already know about this?’
  - Making connections
  - Chunking / clustering
  - Acronyms
  - Diagrams
  - Stories/scenarios
- ‘This is how I’m going to remember it’
Anticipate

Instructor
- Show the learner how to think within the discipline - modeling
- Provide the learner with examples, explanations
  - stress key elements
- Ensure learners can transfer information to a novel situation

Learner
- Think like an Aviator
  - This will create:
    - meaning
    - relevance
    - information will be contextual
    - information will be personal
Awareness

Instructor
• Determine if the learner’s acquisition of knowledge is at the appropriate level of mastery
• Measure their achievement/understanding based on the learning objective

Learner
• How do I know what I know?
• How do I know what I don’t know?
• SAY IT!
  • Talk about it
  • Teach it
What Millennials Say They Need for Success

1. Patience
2. Sharper critical thinking skills
3. Knowledge – more understanding
If We Do These Things

• Students will:
  • be more actively engaged
  • take more responsibility for learning
  • think within the discipline
  • develop conditional knowledge
  • be able to problem-solve, critically think, make decisions
  • develop the ability to be a successful lifelong learner
Review

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References


References - continued

• *How to Fix College Grade Inflation*, USNews.com, (December 26, 2013)

• *Millennials: The Me, Me, Me Generation*, Newsweek.com, (May 9, 2013)

• *Mediocre Millennials*, Inside Higher Education, (February 17, 2015)

• *Chapter 3: How Today’s Economy is Affecting Young Adults*, PewSocialTrends.org, (February 9, 2012)

• *Attention Span Statistics*, StatisticsBrain

• *Brain Development in a Hyper-Tech World*, The Dana Foundation Briefing Paper, (August 2008)

• *8 Brutal Truths About Millennials That Determine the Success of Every Business*, medium.com, (October 10, 2016)
Thank you!