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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
A
Below average
B
Complain until you get a better grade
C
The dean gets involved
D
File lawsuit
F
In complete denial

A+ excellent!

☑ NOW
□ LATER

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

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

Overuse of standardized tests is changing the nature of teaching, narrowing the curriculum, and limiting student learning.
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
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
- Active
- Awareness
- Anticipate
- Associate

Micro-Learning
Short, digestible, well-planned units

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
Associate

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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- Instructional Strategies (Gagne’s 9 Events)
- What Millennials Say They Need for Success
References


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Thank you!