Moving to Best Practice with Today's Students; A Collaborative Learning Approach

Dr. Mark Taylor
www.taylorprograms.com

This handout is provided as a courtesy to attendees at my program at the University of Alabama ay Huntsville on August 8, 2018. Special thanks to Dr. Carolyn Sander and Provost Christine Curtis for inviting me and facilitating my visit.

These slides are not intended as a stand-alone document but support the information from the program. They should not be redistributed to non-attendees without the specific permission of Dr. Taylor. Articles, which can be shared, and more information and resources are available at www.taylorprograms.com

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The clickers I used were ResponseCard RF LCDs from Turning Technologies. Find more information about using audience response systems on my website www.taylorprograms.com and at www.turningtechnologies.com

If you have an interest in or questions about this instructional technology contact Matthew Ragozine at mragozine@turningtechnologies.com

ResponseCard RF LCD
www.TurningTechnologies.com

Volume 3: Becoming a Learning Focused Organization: The Learning Environment   Chapter 4: New Types of Learners / **99**

Generation NeXt:
Today's Postmodern Student—Meeting, Teaching, and Serving

Mark L. Taylor

Introduction

Generation NeXt, the current cohort of traditionally aged college students, brings educational and social characteristics to campus that are challenging educators. The product of a very different social reality than the members of the generational cohorts who predominate in college faculties and staff, their postmodern sensibilities and consumer approach to education may be a remarkably poor fit with what schools traditionally offer (Sacks 1996). This presentation overviews the characteristics of Generation NeXt and presents suggestions for helping its members be successful in postsecondary education.

Volume 3: Finding Common Ground: Programs, Strategies, and Structures to Support Student Success   Chapter 2: Understanding and Supporting All Types of Learners / **3-3**

Meet the Students:
Finding Common Ground between Student and Institutional Goals

Mark Taylor

There are gaps between the traits, expectations, and desired outcomes from their college experience for traditional-aged students from Generation NeXt, and what higher education institutions hope for the academic of these same students to be. These differences in perspective and goals affect student and institutional gestions for closing the gap for improved student and institutional outcomes will be offered.

Volume 3: Programs, Strategies, and Structures to Support Student Success   Chapter 1: Leadership Development Programs, and Strategies

Generation NeXt Goes to Work:
Issues in Workplace Readiness and Performance

Mark Taylor

Many traditionally aged graduates from Generation NeXt are having significant difficulty in successfully transitioning from college the work place and in adapting to the expectations of the workplace (Kearnes and Shirley 2006; Taylor 2006a). Many schools have slow to recognize the significance and magnitude of this epidemic of work-life unreadiness so are not making the necessary instituti programmatic, and instructional changes necessary to improve the work-related abilities of their graduates (Levine 2005b).

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Slide 1

Teaching Generation NeXt: A Pedagogy for Today's Learners

Mark Taylor

Teaching Generation NeXt: Methods and Techniques for Today's Learners

Mark Taylor

Teaching Generation NeXt: Leveraging Technology with Today's Digital Learners

Mark Taylor

Available at
www.taylorprograms.com

Slide 2

3 This chapter addresses issues faculty should consider when exploring the possible use of social media in instruction with today's learners.

Leveraging Social Media for Instructional Goals: Status, Possibilities, and Concerns
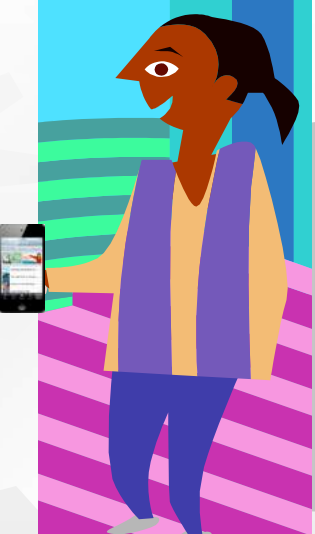
Mark Taylor

Web-based tools including information access, communications, utility programs, and applications (apps) have transformed the lives of most people today, including instructors and students in higher education. Although much of the content is of questionable quality and some of the interaction is negative, web-based tools have generally benefited postmodern life and higher education. Collaborative read/write tools including social media (SM), also referred to as Web 2.0, have had especially strong impacts on students' daily and academic lives. With the ubiquity of social media use, especially by students, many faculty are considering if, and how, they may use those platforms as tools in instruction. Can sites like Facebook, Twitter, Tumblr, and Instagram fit into constructivist-informed teaching and help instructors help their students reach learning outcomes? What should faculty consider when deciding whether or not, and how, to engage with their students on SM sites for instruction? This chapter addresses issues in leveraging SM for instructional proposes.

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Slide 3

A MANAGEABLE REVOLUTION:

FLIPPING

the Faculty from the Lecture Model to Research-Based Instruction DR. MARK TAYLOR

Available at www.taylorprograms.com

Slide 4

Today at UAH

- What is the deal with today's students?
  - Gen NeXt to Gen WOKE
- How are we doing with them?
- Can we improve instruction for better outcomes?
  - Learning
    - To think/ reason well
  - Persistence
    - Engagement through graduation
  - Workplace readiness
    - "New" workplace expectations
    - "Soft skills"
- An invitation research informed instruction
  - Not pandering
  - "Best practices".

Slide 1

Meeting Generation NeXt:
Today's Postmodern College Student

Mark L. Taylor

Introduction

The traditionally aged college student, generation NeXt, is the product of a very different social reality than the members of the baby boom who predominate as college faculty and staff. Postmodern influences and sensibilities permeate the expectations of students and may be at odds with what schools intend to offer. This presentation overviews some characteristics of generation NeXt, their social genesis, and these postmodern times, with suggestions for helping generation NeXt be successful in postsecondary education.

From Gen NeXt to Gen WOKE

www.taylorprograms.com

Slide 2

Traditionals   Boomers   X   NeXt   WOKE

The Big Demographic Story

Slide 3
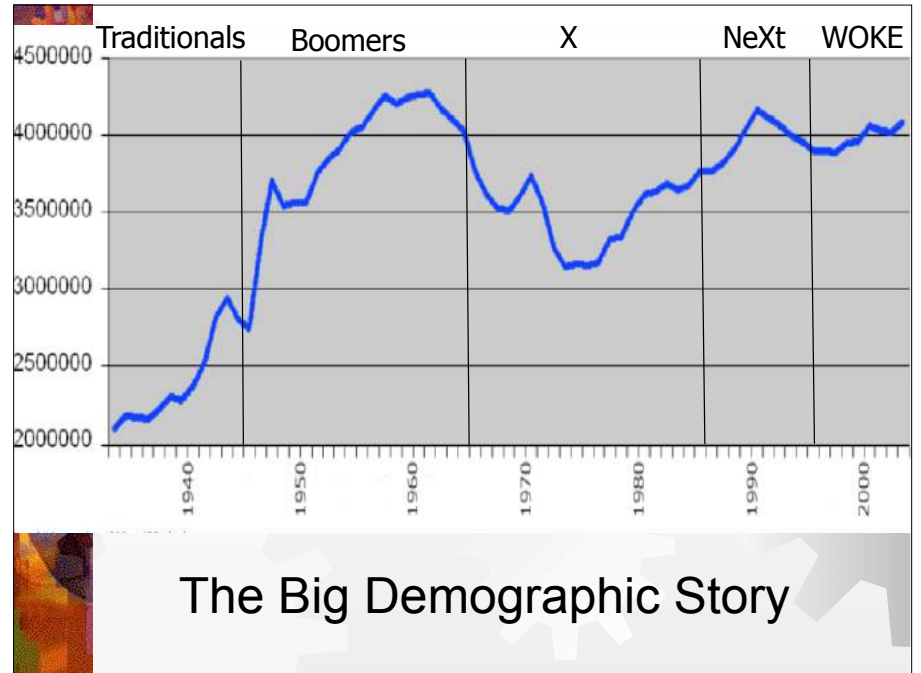
Traditionals

- Last of the "old school"
- Value duty, discipline, thrift,
- Value sacrifice, sobriety, delay of gratification
- Few left at work or classes
- Like social stability
- Not here to have a good time
- Mostly gone; took duty with them.

Slide 4

Traditionals   Boomers

Boomers are not Traditionals

Social Pre-digtial

Cleaver Families

Conflict averse

Mission Big picture

Traditionals   Boomers   X

Kids fall out of popularity
"Zero population growth"

GENERATION X

"A groundbreaking novel."
—Los Angeles Times

TALES FOR AN ACCELERATED CULTURE

DOUGLAS COUPLAND
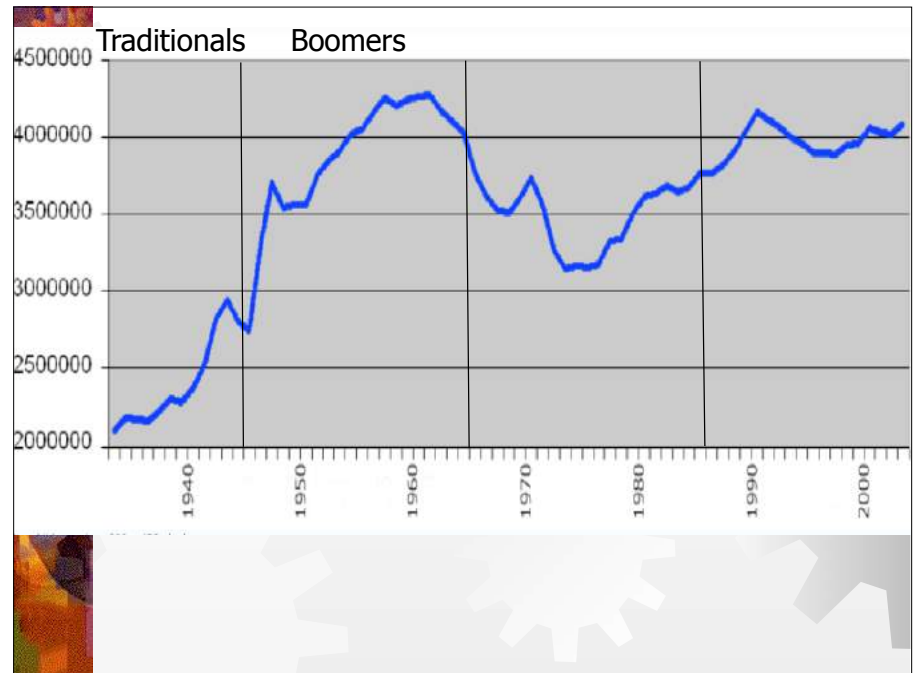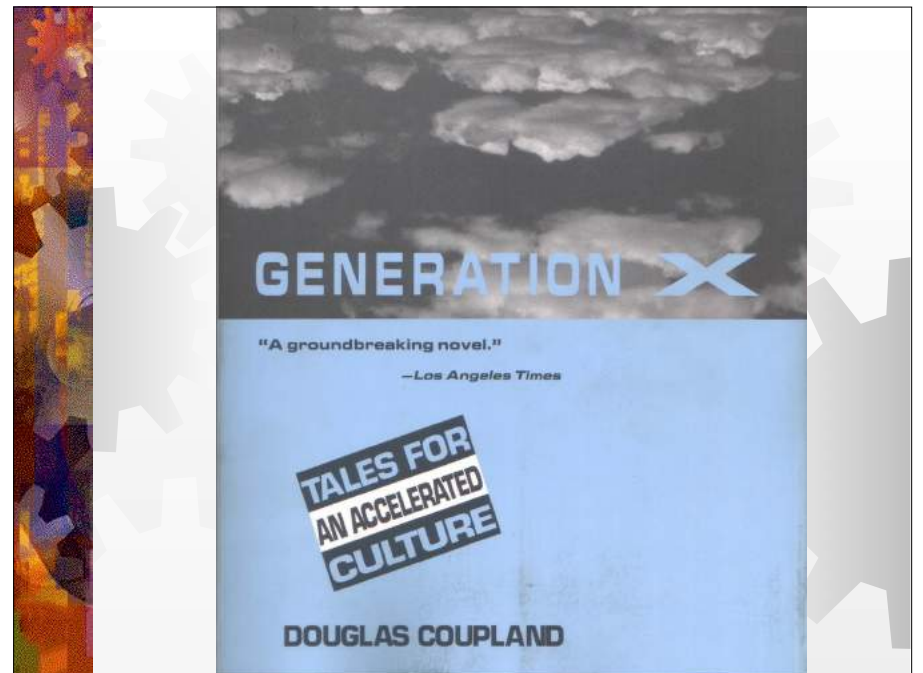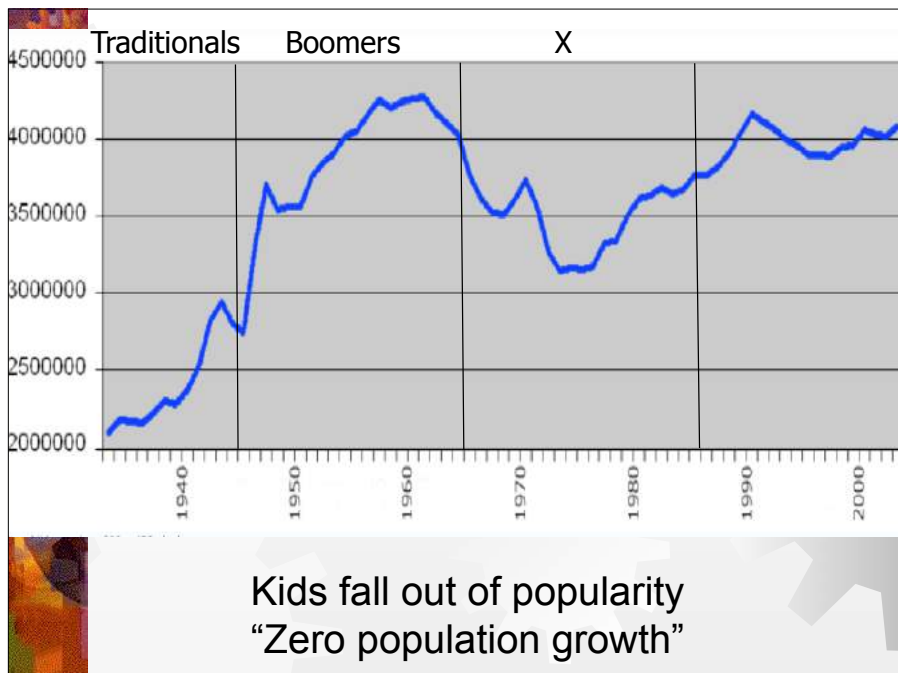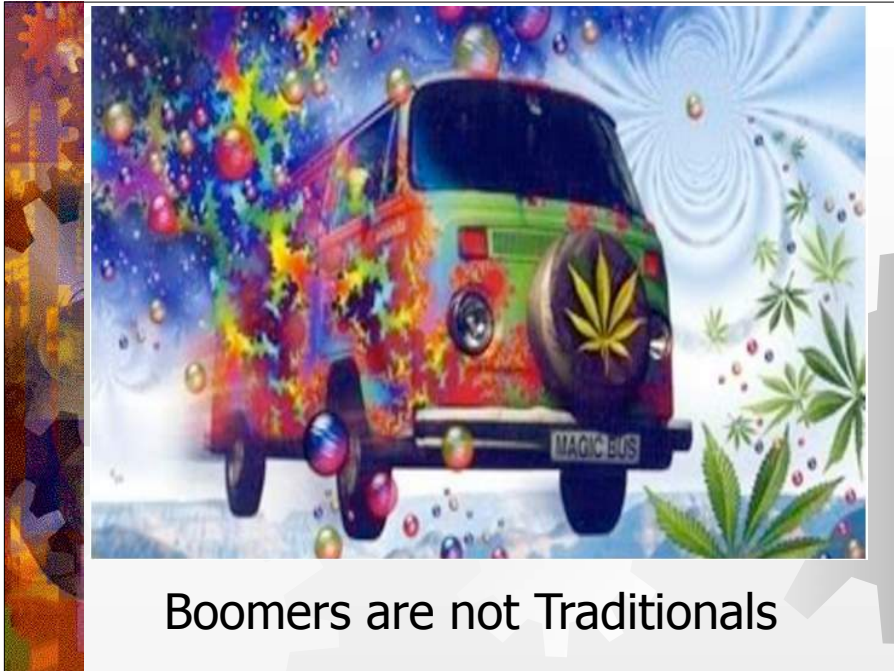
Generation X
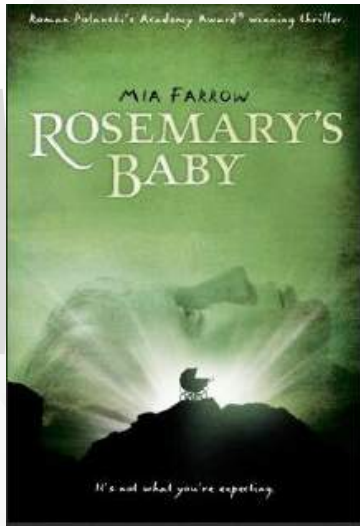
A time of "low child popularity'. Social roles and possibilities were changing so quickly, kids were "advertised" in the cultural narrative as an impediment to adults' growth. (Today children are largely seen as a manifestation of parent's growth.)

Generation X

- Safety warnings
  - Skeptical, Cautious
- Independent
  - Self-sufficient
- Pragmatic
  - More task, less mission
  - Direct/ blunt
- Less interested in promotion
- Were kids during major social transitions
- Scrappy, ready for anything.

Here comes Generation NeXt

A Generational Shift

- From the independent, adaptable, pragmatic scrapper of Gen X

- To the era of the **wanted, precious, protected, perfected** child

- Child centric families

- Especially frequently occurring in private colleges

- "The Trophy Child".
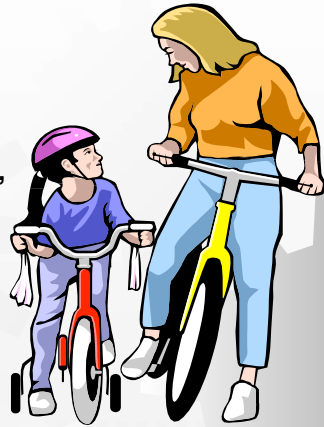
How We Built Gen Next

- When Boomers became parents they **reacted to** the Traditional parenting they received
  - Critical- we always could have done better
  - Distant- they were not our buddies
  - Physical- they would hit us
  - Authoritarian- their way or….
- New model informed by the Human Potential Movement
  - Parents less authority figures
  - More friends/ facilitators
- The Self-esteem experiment

  "If we tell them how great they are and praise them for everything they do, will all of their gifts be revealed?"

Thomas A. Harris, M.D.
The Classic Bestseller That Has Changed the Lives of Millions

Over 15 Million Copies in Print

I'M OK- YOU'RE OK.

"Extraordinary. Harris has helped millions find the freedom to change, liberate their adult effectiveness, and achieve joyful intimacy with others."
—Los Angeles Times

Volume 3: Programs, Strategies, and Structures to Support Student Success   Chapter 1: Creating and Supporting Effective Learning Environments / **3:3**

Meet the Parents: Managing for Student Success

Mark Taylor

Few in higher education will disagree that students' parents are inserting and asserting themselves like never before. The infamous helicopter parent, hovering and occasionally swooping in for the rescue, is now often replaced by the "snowplow" or "bulldozer parent," pushing anticipated obstacles out of their children's way before the children may even be aware of a challenge (Taylor 2006b). While many educators complain that parental involvement in course selection, discipline, and academic work reduces students' opportunities to face meaningful learning and developmental challenges on their own, few deny parents' significance in college selection, student persistence, and financial support.

HELICOPTERS, SNOWPLOWS, AND BULLDOZERS: MANAGING STUDENTS' PARENTS

BY MARK TAYLOR

MENTION PARENTS TO ADMINISTRATORS, STAFF, OR FACULTY AT MOST COLLEGES TODAY, AND YOU WILL YEAR A LITANY OF COMPLAINTS ABOUT MONITOR- ING, INTERFERENCE, AND DOWNRIGHT INTRUSION IN THEIR WORK WITH STUDENTS. FROM ADMISSION AND HOUSING THROUGH COURSE SELECTION, TO EMPLOY- MENT AND STUDENT ORGANIZATION INVOLVEMENT, PARENTS ARE INSERTING AND ASSERTING THEMSELVES LIKE NEVER BEFORE.

Slide 1
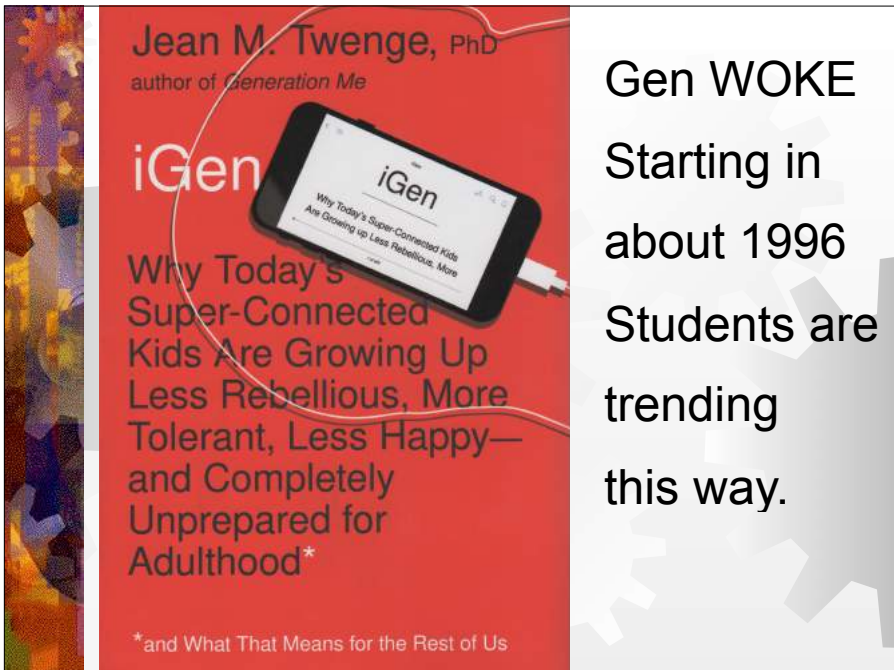
BRING in YOUR
PARENTS DAY
Thursday November 5, 2015

Bring in your parents to work with you and say thanks
for everything they've taught you along the way.

Sign up   Learn more

More companies are involving parents, especially those who want to recruit and retain the most qualified graduates (STEM)

Slide 2

Generation NeXt   born 1983-1996?

- **Disconnected** the reward from significant effort
- May feel **entitled** to outcomes
- May **overrate** their skills, talents and abilities
- May **underrate** the effort required to be successful
- May be **reluctant** to do the hard work of their own learning
- May not accept **responsibility** own learning
- **Even if they come to us like this, they can't leave us like this**
- **If this is the diagnosis, college is the treatment.**

Slide 3

Jean M. Twenge, PhD
author of Generation Me

iGen

Why Today's
Super-Connected
Kids Are Growing Up
Less Rebellious, More
Tolerant, Less Happy—
and Completely
Unprepared for
Adulthood*

*and What That Means for the Rest of Us

Gen WOKE Starting in about 1996 Students are trending this way.

Slide 4

- From Delaying adulthood by prolonging adolescence
- To Delaying adolescence by prolonging childhood

MEET THE TWIXTERS, young adults who live off their parents, bounce from job to job and hop from mate to mate. They're not lazy...

THEY JUST WON'T GROW UP

BY LEV GROSSMAN

Slide 1

Jean M. Twenge, PhD
author of *Generation Me*

iGen

Why Today's Super-Connected Kids Are Growing Up Less Rebellious, More Tolerant, Less Happy— and Completely Unprepared for Adulthood*

*and What That Means for the Rest of Us

- "Growing up slowly"
- Less interested in "independence"
- Less likely to
  - hang out with friends
  - have any face to face time, outside school
  - drive
  - work during school year
  - go out without parents
  - date/ have sex
  - drink alcohol
  - be rebellious
  - fight with parents.

Slide 2

Have Smartphones Destroyed a Generation?

More comfortable online than out partying, post-Millennials are safer, physically, than adolescents have ever been. But they're on the brink of a mental-health crisis.

JEAN M. TWENGE | SEPTEMBER 2017 ISSUE | TECHNOLOGY

https://www.theatlantic.com/magazine/archive/2017/09/has-the-smartphone-destroyed-a-generation/534198/

Slide 3

Have Smartphones Destroyed a Generation?

More comfortable online than out partying, post-Millennials are safer, physically, than adolescents have ever been. But they're on the brink of a mental-health crisis.

JEAN M. TWENGE | SEPTEMBER 2017 ISSUE | TECHNOLOGY

- Addicted to screens from an early age
- Averaging 6 to 8 hours a day
- 2 more on TV
- Replacing lots/ all of their other activities
- Increases in screen time (>3 hrs) show increases in loneliness/ unhappiness/ depression.

Slide 4

Gen NeXt Starting about 1986	WOKE/ iGen Starting about 1995
• Boomer parenting	• Xer parenting
• Protection	• Risk elimination
• harm prevention	• no chances on path to success
• Praising	• Pushing
• Supporting	• Challenging
• Giving to and doing for	• Teaching skills for success
• Aspirational	• Realistic
• You can be anything	• Find where you can succeed
• "Just have fun"	• Be competitive
• Participation trophies	• Winners win. Be a winner.
• Sensitive to criticism	• Distressed by criticism
• Less likely to do the work	• More likely to do the work
• You didn't teach me that	• May blame themselves
• Less competent but happier.	• More competent but less happy
	• So stressed and anxious.

Why they will save us all

- ☑ More diverse/ inclusive
  - ☑ Comfortable with/ value diversity
- ☑ Value fairness and human rights
  - ☑ "Everyone is entitled to.."
  - ☑ Alert to aggressions
    - ☑ Will defend others
    - ☑ (May be easily aggrieved)
- ☑ Purposeful- interested in social change
  - ☑ Want to be involved in something important
  - ☑ Want to change the world for the better
    - ☑ But may not know how
- ☑ **Connect with their sense of mission and interest in social change.**
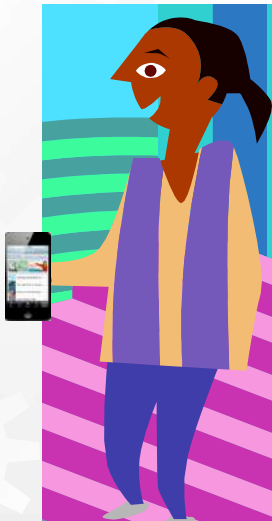
From Teaching to Learning -

A New Paradigm for Undergraduate Education

By Robert B. Barr and John Tagg

The significant problems we face cannot be solved at the same level of thinking we were at when we created them. -Albert Einstein

A paradigm shift is taking hold in American higher education. In its briefest form, the paradigm that has governed our colleges is this: A college is an institution that exists *to* provide instruction. Subtly but profoundly we are shifting to a new paradigm: A college is an institution that exists *to produce learning*. This shift changes everything. It is both needed and wanted.

Change, November/December 1995, pp. 13-25. Reprinted with permission of the Helen Dwight Reid Educational Foundation. Published by Heldref Publications, 1319 Eighteenth *St., N.W., Washington, D.C. 20036-1802. Copyright 1995.*

Most college courses represent a systematic failure to create a learning environment that promotes meaningful, lasting student development.

Students are not learning even basic general knowledge, they are not developing higher-level cognitive skills, and they are not retaining their knowledge.

In fact there is little evidence of a significant difference between students who take courses and student who do not.

Why learn?
John Tagg 2004

FOREWORD BY TOM WOLFE

SEE IT ON PBS

Declining by Degrees

HIGHER EDUCATION AT RISK

Edited by RICHARD H. HERSH and JOHN MERROW

OUR UNDERACHIEVING COLLEGES

A CANDID LOOK AT HOW MUCH STUDENTS LEARN AND WHY THEY SHOULD BE LEARNING MORE

DEREK BOK

Academically adrift

Limited Learning on College Campuses

Richard Arum and Josipa Roksa

Issues in learning outcomes especially around critical thinking

sundance

IVORY TOWER

IS COLLEGE WORTH THE COST?

IN THEATERS JUNE 13, 2014

The Case Against Education

Why the Education System Is a Waste of Time and Money

Bryan Caplan

Degree is signaling on persistence and submissiveness, not learning

Slide 1

% who say each has a positive/negative effect on the way things are going in the country

● Republican/Lean Rep   ● Democrat/Lean Dem

| Churches, religious orgs. | Banks/Financial institutions | Labor unions | The national news media | Colleges and universities |

POSITIVE

Churches, religious orgs.: 73 / 50
Banks/Financial institutions: 46 / 33
Labor unions: 33 / 59
The national news media: 10 / 44
Colleges and universities: 36 / 72

NEGATIVE

Churches, religious orgs.: 14 / 36
Banks/Financial institutions: 37 / 54
Labor unions: 46 / 22
The national news media: 85 / 46
Colleges and universities: 58 / 19

Note: Don't know responses not shown.
Source: Survey conducted June 8-18, 2017.

PEW RESEARCH CENTER

Issues with "public" suppport

Slide 2

"Most colleges are seriously out of step with the real world in getting students ready to become workers in the post-college world".

TIME

MEET THE TWIXTERS, young adults who live off their parents, bounce from job to job and hop from mate to mate. They're not lazy...

THEY JUST WON'T GROW UP

BY LEV GROSSMAN

Slide 3

Assessments of College Graduates' Skills:
% reporting "well prepared" in each area

Hart Research for AACU 2016

← Employers
← Graduates

Skill	Employers	Graduates
Working with others in teams	37%	64%
Staying current on technologies	37%	46%
Ethical judgment and decisionmaking	30%	62%
Locating, organizing, evaluating information	29%	64%
Oral communication	28%	62%
Working with numbers/statistics	28%	55%
Written communication	27%	65%
Critical/analytical thinking	26%	66%
Being innovative/creative	25%	57%
Analyzing/solving complex problems	24%	59%
Applying knowledge/skills to real world	23%	59%
Awareness/experience of diverse cultures in US	21%	48%
Staying current on developments in science	21%	44%
Working with people from diff. backgrounds	18%	55%
Staying current on global developments	18%	43%
Proficient in other language	16%	34%
Awareness/experience of diverse cultures outside US	15%	42%

Slide 4

What the workplace wants

1. Critical **thinking**/ analytical reasoning
2. **Apply** knowledge and skills to real world
3. Effective **oral** communication
4. Work effectively in **teams**
5. Communicate effectively in **writing**
6. Show **ethical** judgement and decision making
7. **Analyze** and solve complex problems
8. Locate, organize and **evaluate** information
9. Manage in a **diverse** environment
10. Innovate and **create**

Teaching Generation NeXt: A Pedagogy for Today's Learners

Research based instruction

- What has been tested and demonstrated to be effective in helping students reach learning outcomes

- Neuroscience/ brain science, cognitive social and counseling psychology, communications theory, direct testing of instructional methods

- Very different from traditional, delivery/ lecture based college teaching

- Really very simple.

Teaching Generation NeXt: A Pedagogy for Today's Learners

"Whoever does the work does the learning"

- Teaching is not a process of delivery (to produce learning)
  - It is not something you **to** students or **for** students
  - Learning is **constructed by students**, not **received from you**
  - Teaching is directing/ helping/ motivating students do the **hard cognitive work** of their own learning
- From student as **recipient of learning** to **active agent in their own development**
  - From extrinsic to **intrinsic** motivation
  - From something you make them do to a **goal** they want/ value.

Learning and the Brain

- Learning happens in the brain
  - Changes in number and quality of neural connections
- Learning can be externally encouraged but only **internally initiated**
  - The goal of teaching is to persuade students to **initiate their internal learning processes**
- Simplest- knowledgeable teacher telling students what they need to know
  - Shockingly ineffective in changing the brain.
- **"Whoever does the work does the learning."**
- "How do what teaching and learning activities impact what parts of the brain?"

Teaching Generation NeXt: A Pedagogy for Today's Learners

"From Remembering to Thinking"

- All information is available
  - There is a requisite body of knowledge in every field
- People don't know what to do with it (application)
- or to make judgements about it (evaluation)
- "Skills" in most classes are about "patterns of thought"
- Think "methods"; not "items of information"
- Cognitively, "remembering" is easier that "analysis/ evaluation"
- Spend class time helping students learn to think/ organize
- Critical thinking……

Slide 1

TEACHING AT ITS BEST

{ A Research-Based Resource for College Instructors }

THIRD EDITION

LINDA B. NILSON

Slide 2

Principles of Best Practice

- **HIGH STANDARDS** and **HIGH SUPPORT**
- Learning based on student **ACTIVITY**
- Very clear **EXPECTATIONS** for being a successful learner
- Academic **OPTIONS** to help them feel some agency
- Non-negotiable **COMPLIANCE** with academic expectations
- Efforts to keep students **ENGAGED**
- Student are **INVESTED;** they care about learning outcomes
- Students are **RESPONSIBLE** for doing the work and for reaching learning outcomes (with your support)
- Learning focuses on **HIGHER LEVEL OUTCOMES**
- Leverages **TECHNOLOGY** for delivering content, skills development and engaging during class.

Slide 3

Some faculty have adopted best practices

Slide 4
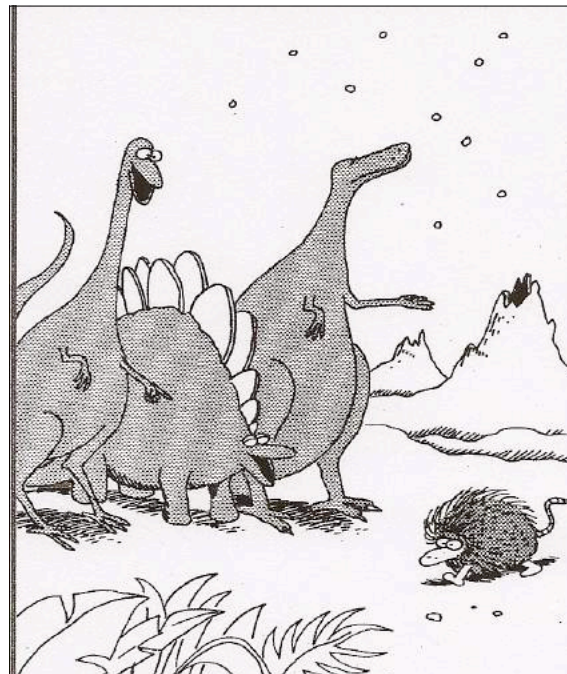
But best practice is not standard practice on most college campuses, and is actively resisted on many.

Why Best Practices?

- Improves learning **outcomes**
  - Lasting remembering and ability to access
  - Skills development
  - Reasoning, evaluation and critical thinking
- Increases student **persistence**
- From extrinsic to **intrinsic** motivation
- From static to **growth** mindset
- Improves **workplace** readiness
- All of your dreams will come true.

Practice in using logic, reasoning and looking at thinking processes.

Improved Learning in a Large-Enrollment Physics Class

Science, Vol. 332 no. 6031 pp. 862-864

Louis Deslauriers,[1,2] Ellen Schelew,[2] Carl Wieman*†‡

We compared the amounts of learning achieved using two different instructional approaches under controlled conditions. We measured the learning of a specific set of topics and objectives when taught by 3 hours of traditional lecture given by an experienced h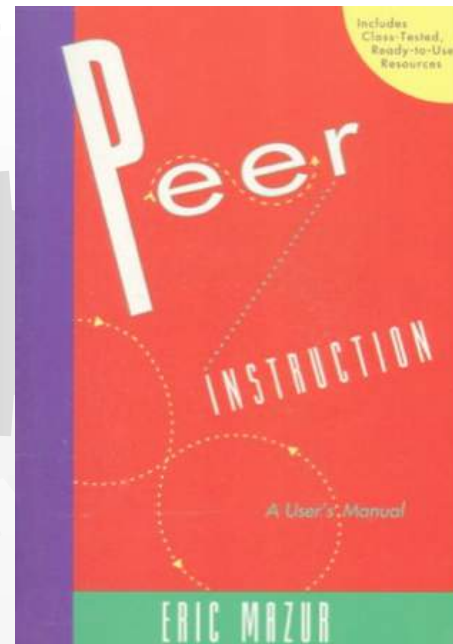ighly rated instructor and 3 hours of instruction given by a trained but inexperienced instructor using instruction based on research in cognitive psychology and physics education. The comparison was made between two large sections (N = 267 and N = 271) of an introductory undergraduate physics course. We found increased student attendance, higher engagement, and more than twice the learning in the section taught using research-based instruction.
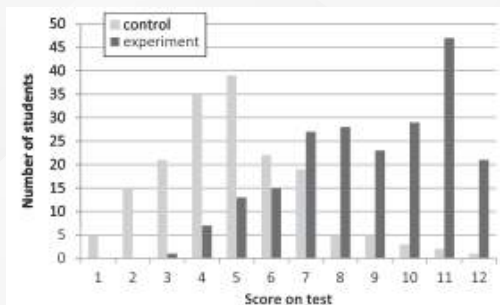
Creating Complete Professionals/ Adults
"Pedagogies of Formation"

Know what to do
Knowledge/ Information
Remembering, Understanding
Effective uploading/ able to recall

Able to do it
Skills
Applying, Analyzing, Evaluating
Habits of the hands
Habits of the head
Knowing how

Willing to do it
Values
Affective, Worth, Caring
Attitudes and biases
Priorities/ judgements
Knowing when

Teaching Generation NeXt: A Pedagogy for Today's Learners

1. Improve student's future orientation

   Don't talk to students; talk to the professional they aspire to become

2. Identify class goals/ link to student's goals

   Help students understand the whys/ benefits of the course

3. Improve student understanding of class expectations

   Teach students how to be effective, self-responsible learners

4. Move content learning out of class

   Flip the class. Meet lower level learning outcomes out of class.

5. Create the necessity of preparing for and attending class

   Points for preparation, and completed homework is ticket into class activity

6. Increase classroom activity and engagement

   Whoever does the work does the learning. Class is coordinated student interaction

7. Improve assessments and accountability

   Combine formative and summative assessments.

Teaching Generation NeXt: A Pedagogy for Today's Learners

1. **Improve student's future orientation**

   - Don't even talk to students
     - Talk to the professional/ person they aspire to become
   - *What do you want to be when you grow up?*
   - Shove some ego into the future" to improve resilience and persistence
   - It is ok not to know, but should be finding out
     - "Undecided" student rarely successful, even in very short term.

Teaching Generation NeXt: A Pedagogy for Today's Learners

1. Improve student's future orientation

2. Identify class goals/ link to student's goals

   - Help students understand the connection between this course and their goals/ what they want to become
   - Extrinsic to intrinsic motivation
     - From credentialing or "getting the credit" to learning
   - Not a big a challenge if the name the class and career are the same
   - Menu of Benefits
     - How can (this class) help you?
       - Professional or personal goal
     - How can an A in this class help you?
     - Pick the three most important to you.
     - Convince your neighbor.

Teaching Generation NeXt: A Pedagogy for Today's Learners

1. Improve student's future orientation

2. Identify class goals/ link to student's goals

3. **Improve student understanding of class expectations**

   - Helping students understand what it takes to be successful in your class/ program/ profession
   - People tend to assume that "what has worked in the past should work now."
   - Clarifying expectations improves compliance.

3. Improve student understanding of class expectation

Making the case for their increased **effort**

- *This discipline is based on research, reason, science and data*
- *I teach based on best practice- the science of learning*
- *We know **Whoever does the work does the learning.***
- *So my job is to help you do the hard work of your own learning*
- *Pretend you have joined "The Learning Gym"*
- *I can't do the work for you*
- *But I will*
  - *make sure you know what to to do*
  - *do everything I can to help you be successful.*

Teaching Generation NeXt: A Pedagogy for Today's Learners

1. Improve student's future orientation
2. Identify class goals/ link to student's goals
3. Improve student understanding of class expectations
4. Move content learning out of class
   - The first step in "Flipping the class"
   - Move lower level learning goal to class preparation time to free live class time for you to help them actively develop higher order thinking skills.

Teaching Generation NeXt: A Pedagogy for Today's Learners

4. Move content learning out of class
   - The introduction of material for remembering and understanding
     - Anything you can explain, you can move out of class
   - The introduction of skills.
     - Anything you can demonstrate you can move that introduction out of class
     - Out-of-class assignment will have a built in homework expectation.

Teaching Generation NeXt: A Pedagogy for Today's Learners

1. Improve student's future orientation
2. Identify class goals/ link to student's goals
3. Improve student understanding of class expectations
4. Move content learning out of class
5. Create the necessity of preparing for and attending class

Simple Tools to Increase Student Engagement

- Engagement with Institution, Instructor, Each other
- Institution
  - Support pedagogies of engagement
- Instructor
  - Mandatory office visit(s)
    - First of term
    - If below 70% on major test
  - Know and use names
    - Mnemonics
    - Name tents
  - E-mail/ contact absent students
  - Encouraging e-mails before major tests with spoilers
- Each other
  - Interactive instructional methods
    - Reflect, pair, square, share
    - Peer instruction- "turn to your neighbor"
    - Jigsaw/ expert groups
  - Group and cooperative learning projects.

Ensuring Preparation and Attendance

- **Preparation is a necessary precondition for participation in the active class session, which will use the homework**
- Ticket in- especially critical in lower level classes
- Its your job to make homework appropriate to content and students
    - Maybe learn vocabulary instead of learn process
- Need to check each student's preparation before each class
  - Through CMS, at the door, clicker quiz (redundant)
- Points can be earned for preparation
  - Only redeemable at the start of class
- Points can be earned for in-class activity
  - **But only prepared students go into the class activity**
- Unprepared students are given the opportunity to complete the assignment during the class session while other students earn activity points.

What to do with the unprepared student?

- Have a conversation
- NOT "Why don't you have your homework?"
  - Requires a justification
- ASK "How it is that you are not prepared for class?"
  - Invites an explanation
- Did you **KNOW** what to do?
  - Did you understand the assignment?
- Are you **ABLE** to do it?
  - Can you do work at this level? (strategy)
- Are you **WILLING** to do what it takes to be successful?
  - to put forth the effort
- Don't let them just fade away as they are socialized to the new model
- E-mail absent students
- First few classes may be a formative assessment of your success in the first three steps of the model and appropriateness of the assignments.

What if they have done the homework but still don't get it?

1. Consider the possibility that the assignment was to complex, difficult, too long

    First assignments are super-easy, about compliance, about socializing them to prepare every day and to give you a chance to praise them for their effort

- Giving a redundant (clicker) quiz can check their real remembering and understanding, and help solidify their learning and ability to access the content (retrieval effect).
- Before the quiz ask "*Does anyone have any questions before the quiz?*"
- They may try to trick you into delivering the content/ killing time/ give the quiz away with a global *"I just didn't get it."*

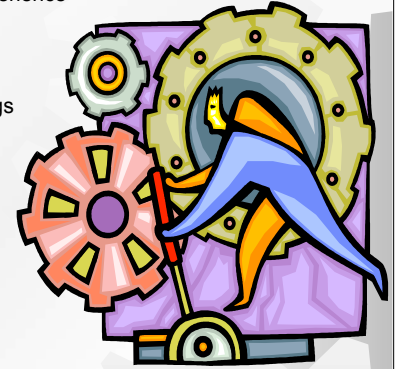# Teaching Generation NeXt: A Pedagogy for Today's Learners

1. Improve student's future orientation
2. Identify class goals/ link to student's goals
3. Improve student understanding of class expectations
4. Move content learning out of class
5. Create the necessity of preparing for and attending class
6. **Increase classroom activity and engagement**

   Guiding students in doing the hard work of learning.

   1. Remembering/ recall
   2. Skills like reasoning
   3. Affective "caring" belief

Activity Increases Learning

- Knowledge/ content
  - Actively upload/ practice retrieval
  - Productive homework before class; worksheets, etc.
  - Low stakes assessments
  - Link to previous understanding/ experience
  - Anticipate a use for it
  - Explain to someone else
- Skills- able to do and apply in new settings
  - See a model/ demonstration
  - Practice with feedback
  - Teach someone to do it
- Values- caring/ worth
  - Invest time and effort
  - Identify future benefit
  - Convince someone else.

Teaching Generation NeXt: A Pedagogy for Today's Learners

7. Improve assessments and accountability.
   - Assessments increase remembering and ability to access
     - Even when students get the answers wrong
     - "Retrieval effect"
   - Combine formative and summative assessments
   - Formative- assessments of learning processes and progress
     - Improves ability to remember, apply and transfer
     - Helps student learn to self-access
   - Summative- measures of learning outcomes
   - **Frequent low stakes testing**

Teaching Generation NeXt: A Pedagogy for Today's Learners

7. Improve assessments and accountability.
   1. Pretest on upcoming content
   2. Quiz on homework they just did
   3. Low level quizzing to start the class on what we did last time
   4. Low level quizzing to end the class on what we just did
   5. Random student offers 2-3 minute summary of what we did last class, no notes
   6. Random student offers 2-3 minute summary of what we just did in class, no notes
   7. "Practice" testing- two midterms
   8. Cumulative testing
   - Any opportunity to help them retrieve helps them remember longer and to be better able to access the information.

Critical thinking

- Ability and willingness to apply thinking skills that are appropriate for the content and thinking task.
- Can be taught through practice
- Different models for different disciplines
- Includes
  - Logic and reasoning skills
    - argument analysis
  - Scientific reasoning
    - hypothesis testing and probability
  - Problem solving and decision making skills
    - Setting priorities and "if / then" thinking
  - Self-monitoring of thinking processes
    - Which skills are applied and how
- Recognition of own assumptions and biases
  - Construction through filters/ "confirmation bias".

Critical thinking

- All about QUESTIONS
  - Getting them to work things out
  - And to process how they did it
- Focusing on structural elements/ aspects of the model (beyond content of problem) allows transferability
  - Experimental design instead of this experiment
  - Following process instead of order of operation
  - Plot construction instead of this story.

Teaching Generation NeXt: A Pedagogy for Today's Learners

1. Improve student's future orientation

   Don't talk to students; talk to the professional they aspire to become
2. Identify class goals/ link to student's goals

   Help students understand the whys/ benefits of the course
3. Improve student understanding of class expectations

   Teach students how to be effective, self-responsible learners
4. Move content learning out of class

   Flip the class. Meet lower level learning outcomes out of class.
5. Create the necessity of preparing for and attending class

   Points for preparation, and completed homework is ticket into class activity
6. Increase classroom activity and engagement

   Whoever does the work does the learning. Class is coordinated student interaction
7. Improve assessments and accountability

   Combine formative and summative assessments.

The Move to Research Based Instruction

- Everyone can/ should/ must move to research based instruction
- Learning outcomes
  - **Critical thinking**
- Persistence
  - Engagement through graduation
- Workplace readiness
  - "critical thinking and analytical reasoning"
- Data/ information rich world
  - Making sense of it
  - Making wise choices based on good, evaluated information and sound decision making.
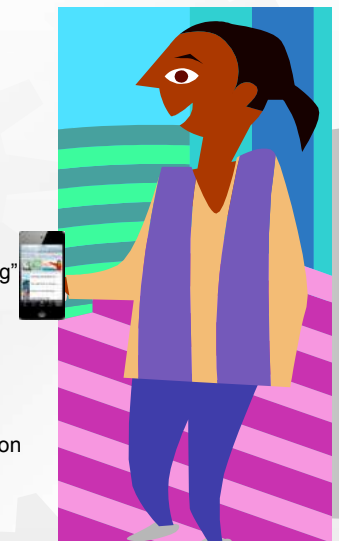
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