Moving to Best Practice with Today’s Students: A Collaborative Learning Approach

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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”
Meeting Generation NeXt: Today’s Postmodern College Student

Mark L. Taylor

Introduction

The traditionally aged college students, 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 teach. This presentation reviewed some characteristics of generation NeXt, their social genetics, and these postmodern times, with suggestions for helping generation NeXt be successful in postsecondary education.

From Gen NeXt to Gen WOKE

Traditional

- 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.

The Big Demographic Story

Traditionals | Boomers | X | NeXt | WOKE

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Boomers are not Traditionals

Social Pre-digtial
Cleaver Families
Conflict averse
Mission Big picture

Kids fall out of popularity
“Zero population growth”
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?”

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 child’s way before the children may even be aware of a challenge (Taylor 2006). 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.

HELICOTPTERS, SNOWPLOWS, AND BULDOZERS: MANAGING STUDENTS’ PARENTS

By Mark Taylor

Mention parents to administrators, staff, or faculty at most colleges today, and you will hear a litany of complaints about monitoring, interference, and downright intrusion in their work with students. From admission and housing through course selection, to employment and student organization involvement, parents are insisting and asserting themselves like never before.

Thomas A. Harris, M.D.
I’m OK - You’re OK
The Classic Book That Has Changed the Lives of Millions

“Encourages tens of millions find the freedom to change Negative self talk and become personal change won't happen.”
—Los Angeles Times
More companies are involving parents, especially those who want to recruit and retain the most qualified graduates (STEM).

• 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.

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

• From Delaying adulthood by prolonging adolescence
• To Delaying adolescence by prolonging childhood
• “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.


• 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.

Gen NeXt
Starting about 1986
• Boomer parenting
• Protection
  • harm prevention
• Praising
• Supporting
• Giving to and doing for
• Aspirational
• You can be anything
• “Just have fun”
• Participation trophies
• Sensitive to criticism
• Less likely to do the work
• You didn’t teach me that
• Less competent but happier.

WOKE/ iGen
Starting about 1995
• Xer parenting
• Risk elimination
  • no chances on path to success
• Pushing
• Challenging
• Teaching skills for success
• Realistic
• Find where you can succeed
• Be competitive
• Winners win. Be a winner.
• Distressed by criticism
• More likely to do the work
• May blame themselves
• 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.

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

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.

Issues in learning outcomes especially around critical thinking.

Degree is signaling on persistence and submissiveness, not learning.
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**
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.

“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?”

“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 than “analysis/evaluation”
- Spend class time helping students learn to think/organize
- Critical thinking……
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.

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

Some faculty have adopted best practices
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 Desloge,

We compared the effects of learning achieved using two different instructional approaches under controlled conditions. We measured the learning of a specific set of tasks and objectives when taught by 3 hours of traditional lecture given by an experienced, highly rated instructor and 3 hours of instruction given by an 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 = 273) 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
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.

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.

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.

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 do
  - do everything I can to help you be successful.

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.
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.

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.

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
  - It’s 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 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.”
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
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
   - 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.
   - Assessments increase remembering and ability to access
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   - 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
   - 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
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4. Move content learning out of class
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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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