
The background features a light gray field with several faint, overlapping gear shapes. On the left side, there is a vertical strip of colorful, abstract, textured patterns in shades of orange, purple, and brown.

Teaching Today's Learners

Dr. Mark Taylor

www.taylorprograms.com



This handout is provided as a courtesy to attendees at my session at the ASCLS 33rd Annual Educators Conference in Boston on February 21, 2017. Special thanks to Rodney Rohde for recommending me, and Pam Magnani and Karrie Hovis for 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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Why We Must Change: The Research Evidence

By Lion F. Gardiner

Most faculty work long and hard. We care about educating our students. Thanks to our efforts, many of them experience deep personal transformation during their college years.

However, when we subject the quality of our collective work as educators to the same close examination we demand in our disciplines, we find a substantial body of evidence that clearly demonstrates a crisis of educational quality in our nation's colleges and universities.

to begin immediately to assess, evaluate, and improve the quality of our work.

Fortunately, this improvement is as possible as it is urgent. The professional research literature in higher education can easily provide us with valuable information we can use to understand more fully our effectiveness as educators—if we would only use it.

In this article, I hope to acquaint readers with important research that has been done over the past three decades on how stu-

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.



A new pedagogy?



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

Abandon the Traditional Pedagogy

Lecture around
low level content
to **passive students**
who are often **disengaged**
from **class “activity”**
and the **course material**,
remembering
just to **pass a test.**





Teaching Generation NeXt: A Pedagogy for Today's Learners

Teaching Generation NeXt: A Pedagogy for Today's Learners

Mark Taylor

Faculty struggle to effectively teach our traditionally aged students from Generation NeXt. They are different, and different kinds of learners, than anyone higher education has experienced in the past, and there is ample evidence of a growing divide and mismatch between faculty and students in teaching and learning (Coates 2007; Schroeder 2004). Our students' academic preparation and expectations, consumer orientation, esteem and importance issues, and use of technology are challenging traditional educational practices (Taylor, 2005, 2006; Twenge 2006). "Old school" methods, especially the all too common lecture on content to passive learners, are proving less and less successful in bringing students to appropriate learning and developmental outcomes (Bok 2006; Shulman 2005a, 2005b; Tagg 2004; U.S. Department of Education 2006). Workplace readiness outcomes are often poor and are coming under increased scrutiny (Grossman 2005; Hersch and Merrow 2005; Levine 2005; Taylor 2007).

This generation of digital natives has caught educators flat-footed (Prensky 2001a, 2001b; Tapscott 2009). Pedagogies of activity and engagement, especially those that use recently available Web- and



Teaching Generation NeXt: A Pedagogy for Today's Learners

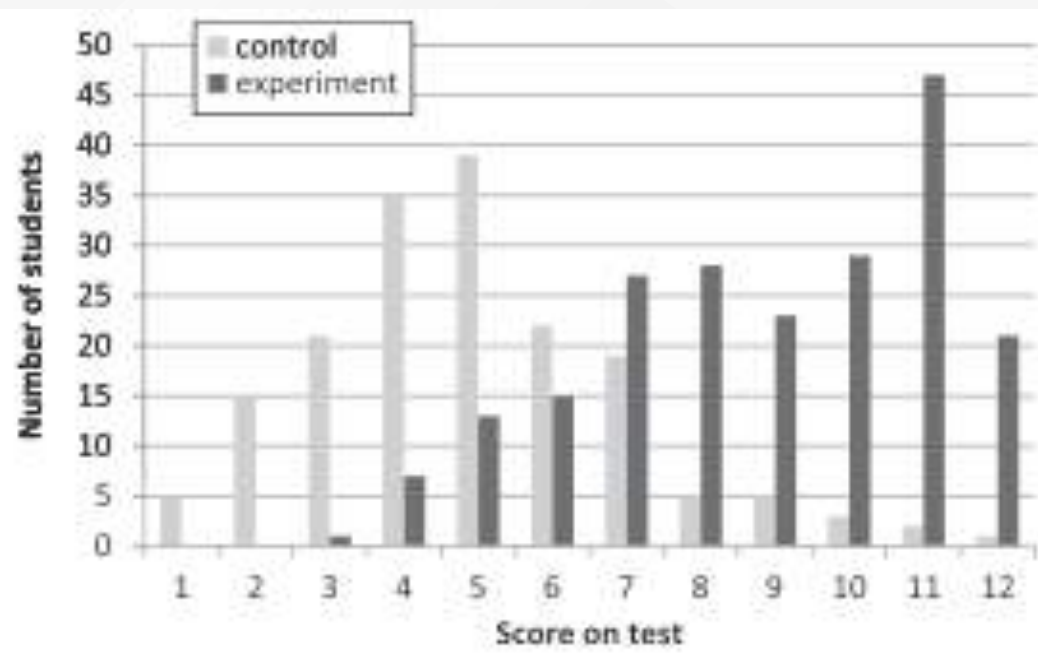
Best practices in teaching and learning

- “Research based instruction”
- What has been shown to work in helping students reach learning outcomes
- **“Whoever does the work does the learning.”**
- Teaching is not a process of delivery
 - It is helping students do the hard work of their own learning
 - In and out of the classroom.

Improved Learning in a Large-Enrollment Physics Class

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 highly 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.



Center for American Progress



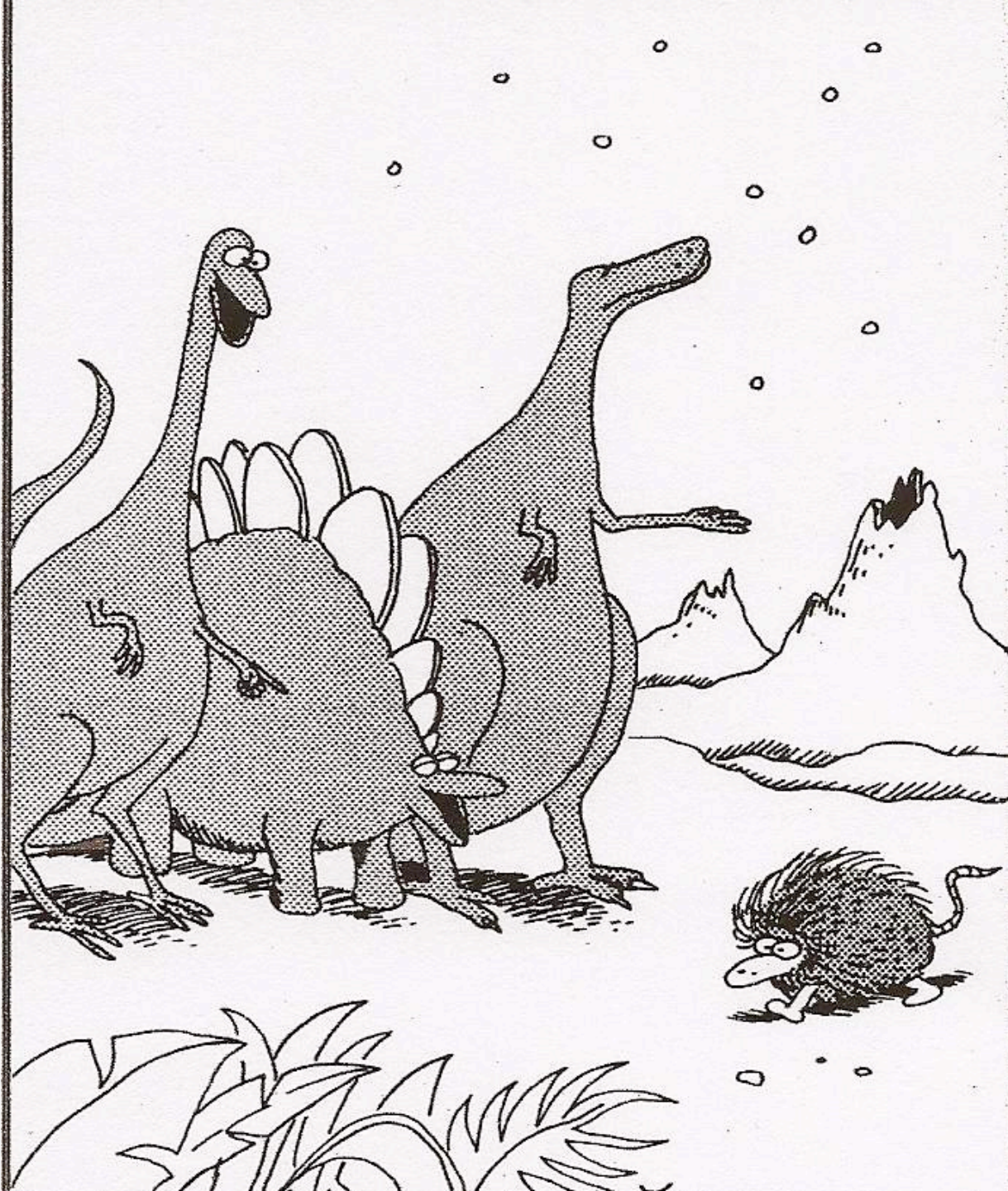
Disrupting College

Principles of Best Practice

- Non-negotiable **COMPLIANCE**
clear expectations for success
- Students are **ACTIVE**
out of class and in class
- Students are **ENGAGED**
with the course content and during class
- Student are **INVESTED**
they care about the class; content and skills
- Students are **RESPONSIBLE**
for preparation before class and for working during class
- Learning moves to **HIGHER LEVELS**
from recall to applying/ skills and evaluating
- Leverages **TECHNOLOGY**
for “delivering content” out of class and engaging during class.







Know what to do
Knowledge/ Information
Remembering, Understanding
Explain it to someone else

Able to do it
Skills

Applying, Analyzing

Demonstrate to someone

Willing to do it
Values

Evaluating

Convince another student

Activity increases learning



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
7. Improve assessments and accountability.



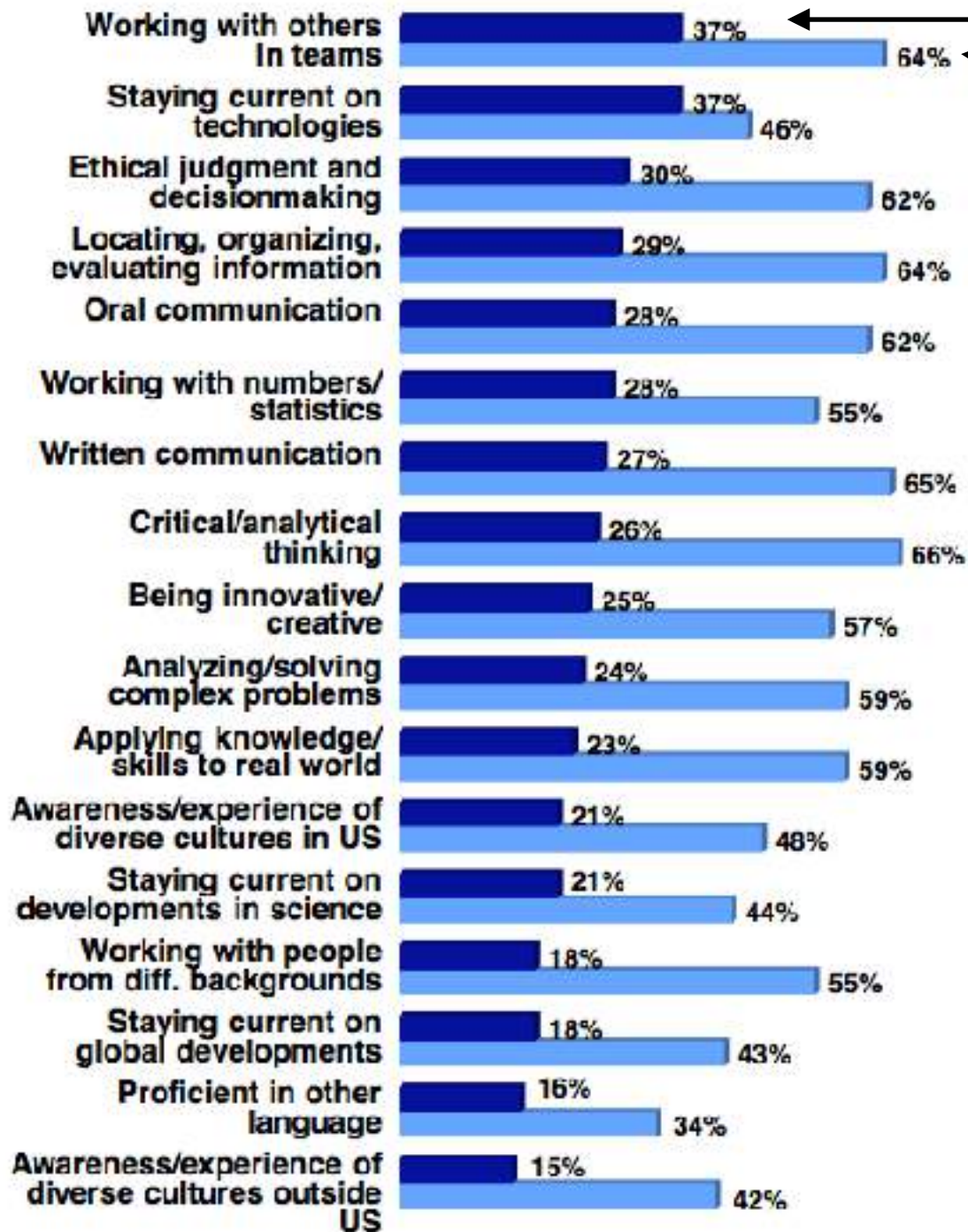
Teaching Generation NeXt: A Pedagogy for Today's Learners

1. Improve student's future orientation

- Don't even talk to students
 - Talk to the professional they aspire to become
 - Or what it takes to get there
- They must move some ego into the future to persist
- Builds affective engagement/ investment
- So they can see the value in/ worth of necessary effort.

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
 - Not a big a challenge if the name the class and career are the same
 - Opportunity to talk about becoming a complete professional
 - *Have to know this stuff*
 - *Be about to do these things*
 - *And also.....*



Employers

Graduates



To Solve the Skills Gap in Hiring, Create Expectations in the Classroom



Michael Morgenstern for The Chronicle



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.



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 expectation

☀ "What has worked in the past should work now."

Academic effort of high school not sufficient for most students in college.

☀ Spend more time processing class/ academic expectations

☀ *Best practice- science of learning*

☀ ***Whoever does the work does the learning.***

☀ *So my job is to help you do the hard work of your own learning.*



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
"Flipping the class".

Teaching Generation NeXt: A Pedagogy for Today's Learners

4. Move content learning out of class
 - a. Think “options” that meet “learning styles”
 - Especially visual/ video
 - Voice over slides
 - Found and created video
 - Mixed video of “lecture”
 - b. Interactive
 - Ideal is built in homework
 - c. Combine FOUND and CREATED resources
 - Much available
 - Yours may be best for your students
 - Establishes your expertise.

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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

Ensuring Preparation

Make very clear

- ☀ What preparation is **required**

Options for preparing

- ☀ That/ how content will be **used** in class

- ☀ How preparation will be **assessed**

Before class

Course mgt. system, e-mail

In class

Check homework, clicker quiz, etc

Preparation worth 25% of grade

Only “redeemable” in class

Activity worth 25% of grade

Must prepare to participate in the class





Teaching Generation NeXt: A Pedagogy for Today's Learners

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6. Increase classroom activity and engagement

Activity Increases Learning

- **Information**

Remembering/ understanding

They explain it to someone else

- **Skills**

Competent professional performance

Perfect practice

They demonstrate/ teach it to someone else

- **Values-** Ideas about worth

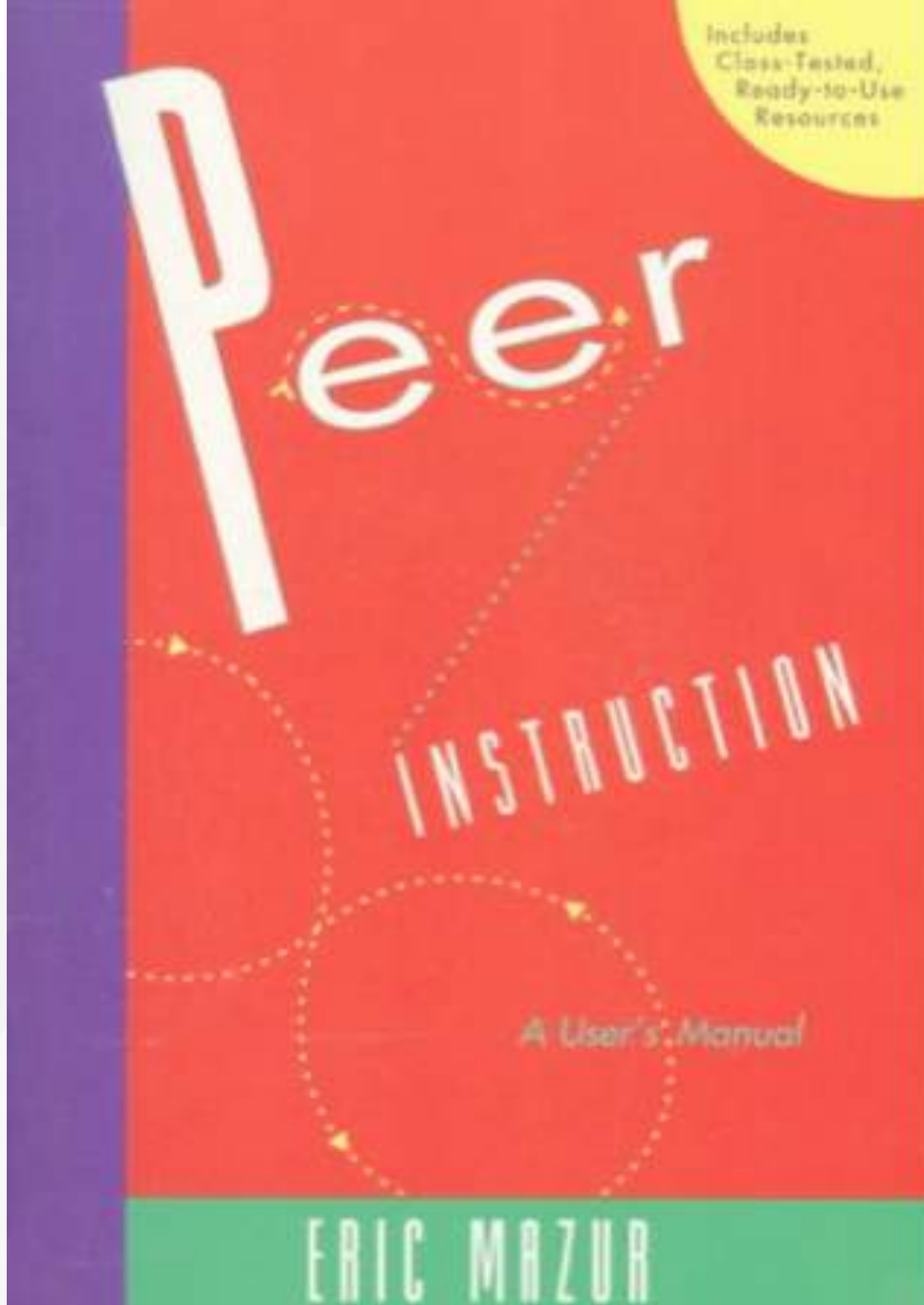
Investment

What can I do with this that will help me?

Future benefit

They convince a peer.





Includes
Class-Tested,
Ready-to-Use
Resources

Peer

Peer

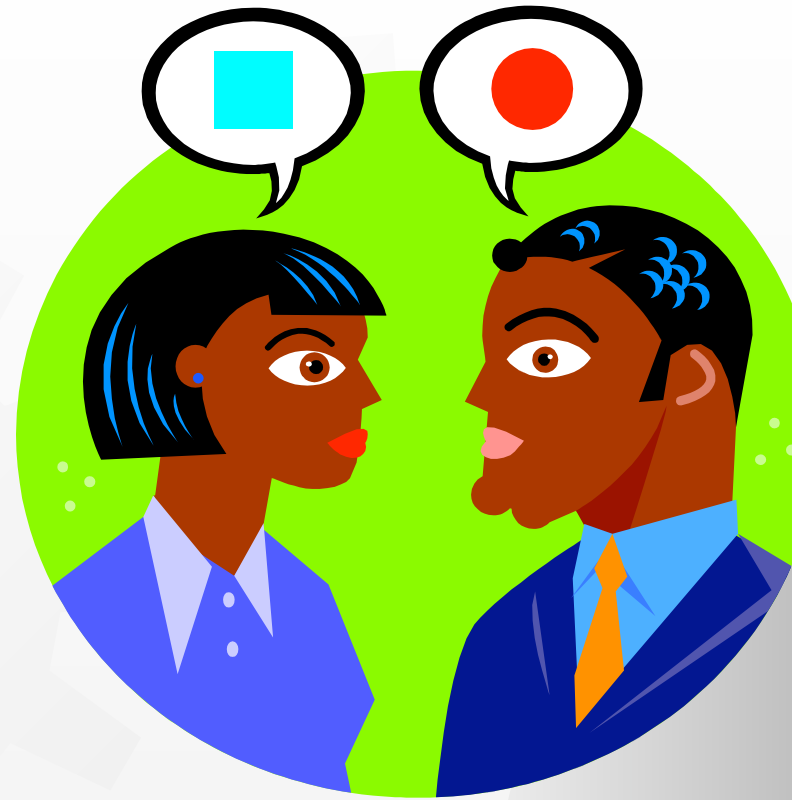
INSTRUCTION

A User's Manual

ERIC MAZUR

Peer Instruction

- Very specific process
 - Students are
 - Introduced to new content
 - Learn a new skill/ process
 - Teacher poses question
 - Remembering content
 - Understanding content
 - Applying skills
1. Select your best answer
 - Don't know is an option
 2. Select your best answer
 - Might offer activity points on the second response.



Activity script

- **Think/ reflect**

individuals reflect, think about or work with content alone for understanding and to generate application ideas

- **Pair**

dyads talk about, demonstrate, work through understanding content and applications

- **Square**

two dyads connect to compare, re-explain

- **Share**

all of the “squares” reassemble as a class to share, review, debate, apply

Jig saw/ expert groups

- Cooperative learning strategy
- Each student assigned to “expert” group to learn one aspect of content/ step of skill
- Expert groups discuss content and plan teaching strategy
- Return to original “jig saw” group and teach content.





Teaching Generation NeXt: A Pedagogy for Today's Learners

7. Improve assessments and accountability.

Assessments

Summative- measure of outcome

Graded, at the end of the process

“All summative are graded but not all that is graded is summative.”

Formative- measure of process

Make students thinking process visible to both student and teacher

How are we doing?

Are they getting it (and ready to move on)?

Is this student getting it?



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.

Research Based Instruction I

- Becoming a professional/ mastering a body of knowledge requires significant **time, effort** and **focused attention**.
- Teachers want students to learn and will help, but learning and academic success is **ultimately up to the learner**.
- Professions (especially in health care) require **lifelong learning**, so knowing how to learn is as important as what is learned.
- **Active learning** is better than passive learning.
 - Do something. Write, draw..
- **Communication** is active, a natural part of the human experience and impacts learning.
- **Repetition** helps people retain knowledge and practice helps develop skills.
- **Memorization** is more effective when it is **relational**.

Connect to other content, past experience, future goals.

Research Based Instruction

- Students often must be taught how to be effective learners.
- Learning is more effective when goals are clear and match student's goals.
- Students must be engaged at the affective level.
 - Why learn this? How will it help me in the future?
- High instructor expectations bring high results, especially in the health care professions.
 - “Good enough” is probably not.
- The learning environment impacts student learning.
 - Physical comfort, lack of distractions
- The learning climate impacts student learning.
 - Effective teaching balances intellectual challenge and instructional support
 - Everyone can be successful (this is not zero sum game)
 - The more students work together the more successful everyone can be