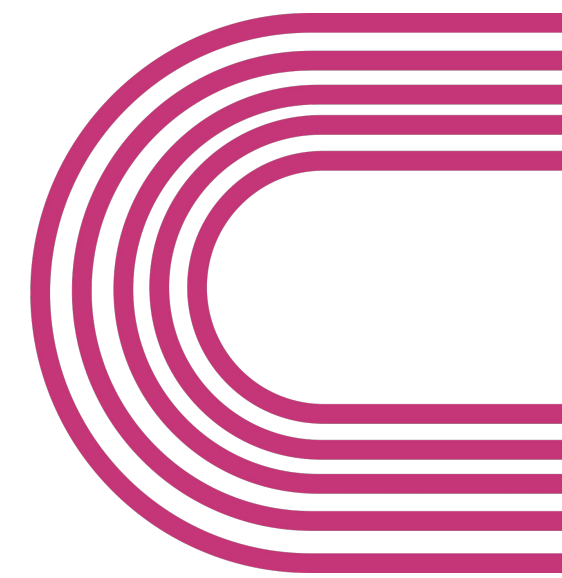


While you're coming in and getting settled—write down a definition of assessment on the note card handed to you.



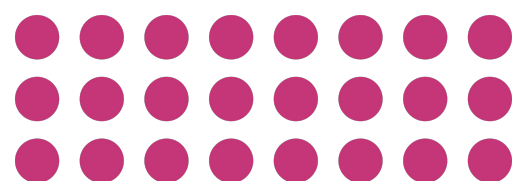
Your Econ Class Playbook

Understanding teaching methods and how to
effectively apply them to your classrooms

Jamie Wagner, University of Nebraska at Omaha

Tim Dye, Perry Meridian High School

John Kruggel, James Madison University



Where this all started

Why do professors/instructors still rely so heavily on Chalk and Talk?!

- **Lack of training and prioritization among Ph.D. programs in teaching the science of teaching and learning.**
- **K-12 teachers learn the METHODS of teaching econ grad students do not**
- **Let's put the science of learning back into your classes!**



Lunch at JET SET 2025!

**Leveraging what K-12 has
learned about learning:**





Raise Your Hand IF...



1. You have had formal training in pedagogy.
2. Your PhD program required coursework in how people learn.
3. You've been observed/evaluated on your teaching

Let's Focus on the Evaluation Piece:

Ineffective

Needs Improvement

Effective

Highly Effective

3=Effective

4=Highly Effective

MO-Motivating Students

This is a “3”

Major difference: third
point....students

This is a “5”

- The teacher organizes the content, including curriculum resources, so that it is personally meaningful and relevant to students.
- The teacher develops learning experiences where inquiry, curiosity, and exploration are valued.
- The teacher regularly reinforces and rewards effort.

- The teacher consistently organizes the content, including curriculum resources, so that it is personally meaningful, relevant, and intellectually engaging to students.
- The teacher consistently develops learning experiences where inquiry, curiosity, and exploration are valued.
- Students are consistently engaged in their own learning, and the teacher reinforces students' initiative to learn more.

It's NOT Just Motivation, however.....

LS-Lesson Structure and Pacing

- The lesson structure is clear and logical.
- The lesson's content, and with time for understanding.
- Pacing is appropriate, providing opportunities for different learning styles.
- Routines for transitions.

- The lesson's content, and needs, with student understanding.
- Pacing is appropriate, providing opportunities for individual student learning rates.
- Students' individual learning rates are considered.
- Students understand routines and transitions.

QU-Questioning

- Teacher questions are provided, based on content knowledge, application, and creation.
- Questions are open-ended.
- The frequency of critical thinking questions is appropriate.
- Questions are used for instructional goals.
- Wait time (3-5 seconds) is used.
- Questions require whole-class, small group, and individual responses.
- The teacher encourages all students to respond.

- Teacher questions are provided, based on content knowledge, application, and creation.
- Questions are open-ended.
- The frequency of critical thinking questions is appropriate.
- Questions are used for instructional goals.
- Wait time (3-5 seconds) is used.
- Students respond to teacher questions with whole-class, small group, and individual responses, or choral responses.
- All students are encouraged to respond and engage in the learning process.
- Students generate further inquiry questions.

What Evaluations **ARE** About

Student outcomes › Teacher moves (review the previous slides)

Professors (particularly those attending JETSET) are great at the teacher moves (circulating, asking questions, engaging with clickers, etc.)

1. Do we plan for student outcomes?
2. **WHY** are students taking notes?
3. What **EVIDENCE** is there that students are learning?

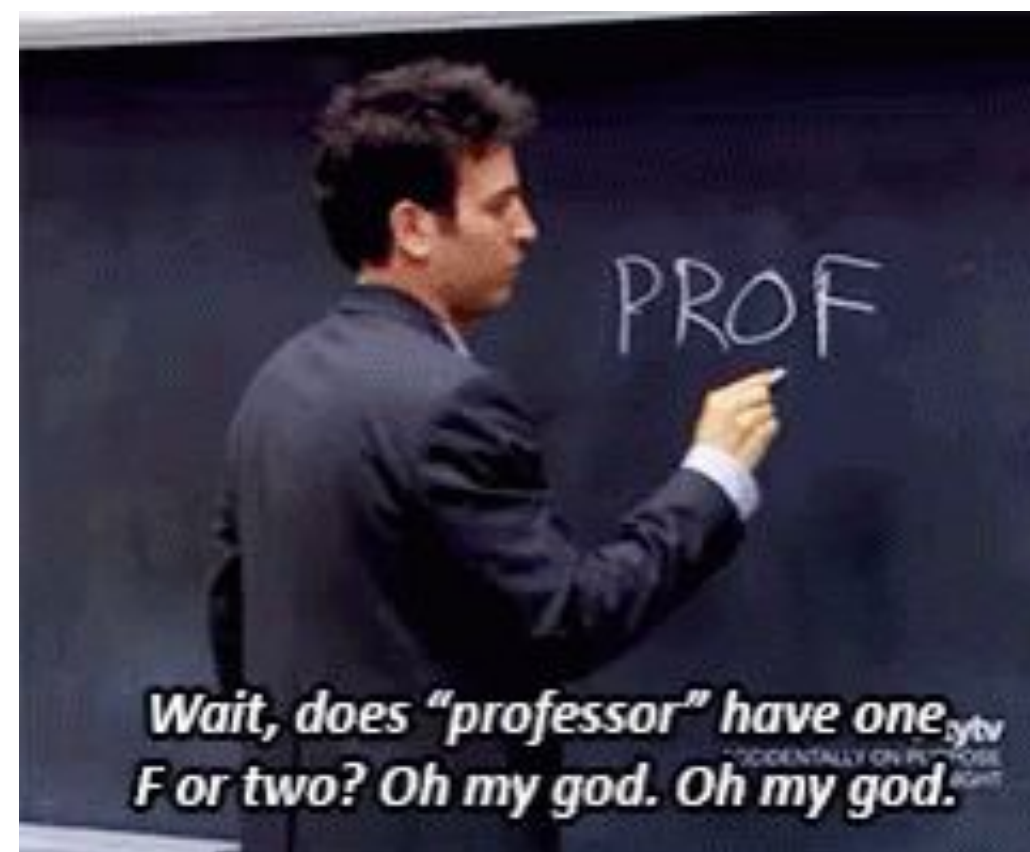
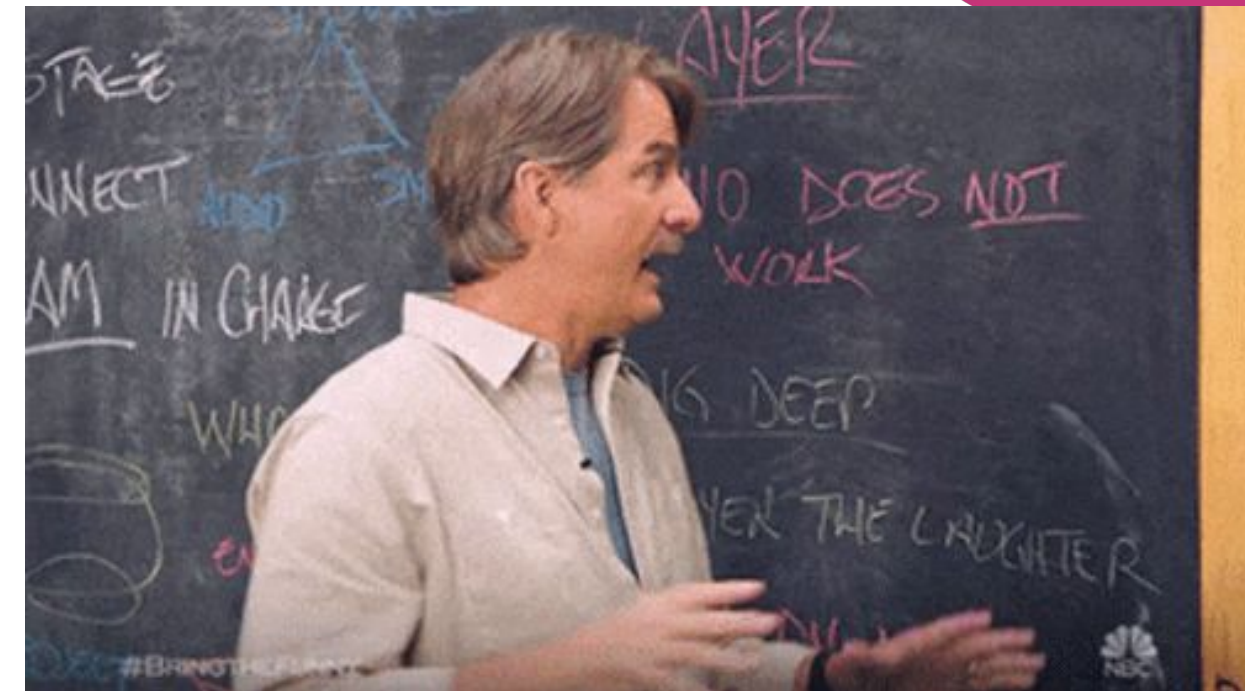


Background about College Teaching Preparation

- **Algood and Walstad (2013) found that economists outside of the top 100 institutions spend about 30 hours a week devoted to teaching–preparation, instructional time, grading, and more (those in the top 100 institution still spent about 22 hours teaching)**
- **2018 survey of department chairs and new faculty found that 68 percent of chairs said the new assistant professors are prepared to teach while only 60 percent of the new faculty felt their graduate school training prepared them for teaching (Allgood, Hoyt, and McGoldrick, 2018)**
- **The University of Delaware had a PhD program in Economic Education, the only known specific preparatory program for doctoral students to get both the content of economics and mastery over teaching the subject.**
 - **However, that program has ended leaving a large hole for economic education**
- **Even back in 1996, Salemi, Saunders, and Walstad stated that graduate programs are focused on skill and content development with little focus or attention teaching training**



We're not doing this anymore



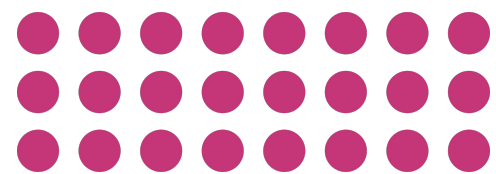


Beyond the Syllabus: Designing a Course That Actually Works

Timothy J. Dye

Perry Meridian High School

tdye@perryschools.org



Hope is Not a Strategy

How do we know (evidence) students understand?

Is there another way?

(Review teacher evaluations in K-12.)

Post conference prompt: “Based on student work you have brought to this post-conference, how did your lesson go?”



Chunking

As one example in how to approach developing your syllabus:

Consider:

cognitive load

attention span.

Research...

Chunking: An Example

45-minute class (traditional)

30 minutes providing information on absolute and comparative advantage. Video clips. Examples.

15 minutes of student worksheets, actively working on examples and identifying absolute/comparative advantage in case studies.

45-minute class (chunking)

10 minutes of lecture over absolute advantage.

5 minutes of practice over absolute advantage.

10 minutes of lecture over comparative advantage.

5 minutes of practice over comparative advantage.

10 minutes of review, example, clarification.

5 minutes of practice over both absolute and comparative advantage.

Chunking: Summary

Chunking: an example

45-minute class (traditional)

30 minutes providing information on absolute and comparative advantage. Video clips. Examples.

15 minutes of student worksheets, actively working on examples and identifying absolute and comparative advantage in case studies

45-minute class (chunking)

10 minutes of lecture over absolute advantage

5 minutes of practice over absolute advantage

10 minutes of lecture over comparative advantage

5 minutes of practice over comparative advantage

10 minutes of review, examples, and clarification

5 minutes of practice over absolute and comparative advantage

It's NOT....

- Watered down content
- Less content
- Lowering expectations

It IS....

- Reorganizing content in an intentional way that maximizes student understanding.

The best part? This doesn't take a lot of time to reformat lessons!

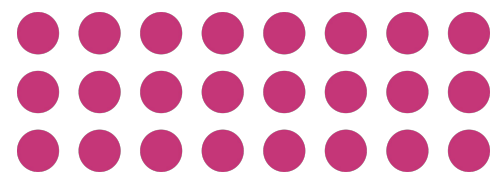


Engagement Toolkit: Instructional Methods You Can Use Monday

John Kruggel

James Madison University

kruggejb@jmu.edu



Let's start with a **bridge activity**. How can you apply what you just learned to your class tomorrow?



Using GEN AI for Backwards Design

When asked “How do you translate goals to action and progress?” [by Andrew Moses](#), Herm Edwards replied:

“Plans and goals are great, however, a goal without a plan is a wish. The plan is critical to achieving the goal, however, the only way a team truly understands the leader’s plan is if they provide details. So do not just tell people what to do and how to do it-tell them why.”



Using Large Language Models for Backwards Design

- Working paper with a former student research assistant.
- Using Chat GPT for backwards design in economics curriculum.
- Take your existing final exam, upload the questions into Chat GPT or some other LLM.
- Ask it to provide an answer, AND the reasoning behind its answer.
- **Use the reasoning to ensure you include all the terms/context necessary for your students to understand the concepts when developing their understanding of the concept.**

Example from my final

Prompt for LLM: Can you answer the following question and provide the reasoning behind your answer?

Assuming there is a full multiplier effect, how much will aggregate demand (AD) increase if \$100B in new government spending goes into an economy with a marginal propensity to consume (MPC) of 0.5?

Chat's response:

Use the Keynesian spending multiplier:

$$\text{Multiplier} = \frac{1}{1 - \text{MPC}}$$

Given:

- Government spending increase = \$100 billion
- MPC = 0.5

Step 1: Calculate the multiplier

$$\frac{1}{1 - 0.5} = \frac{1}{0.5} = 2$$

Step 2: Calculate the increase in aggregate demand

$$\Delta AD = \text{Multiplier} \times \Delta G$$

$$\Delta AD = 2 \times \$100\text{B} = \$200\text{B}$$

Answer

Aggregate demand would increase by \$200 billion under the assumption of a full multiplier effect.

Reasoning

With an MPC of 0.5, households spend half of any additional income they receive and save the other half. The initial \$100 billion of government spending becomes income for someone else, who then spends 50% of it (\$50 billion). The recipients of that \$50 billion then spend half again (\$25 billion), and so on:

$$100 + 50 + 25 + 12.5 + \dots = 200$$

This infinite series sums to \$200 billion, which is equivalent to applying the multiplier of 2 to the initial \$100 billion increase in government spending.

What key topics should I be sure to use when introducing this concept?

Is there any specific wording I should use?

What about possible examples I could use?

MUCH more on assessments later....

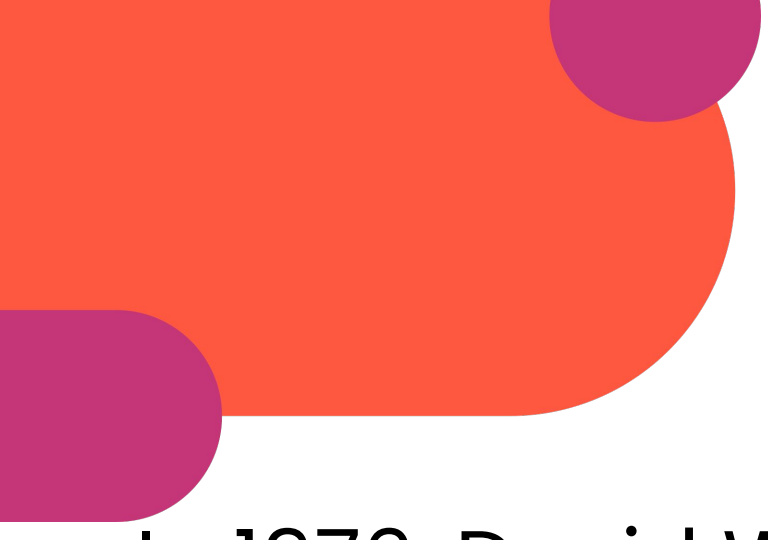


Active Learning & Scaffolding

This activity integrates all of these concepts into a quick 20 minute experiment adapted from my high school class to fit my micro class.

(shoutout to Noah!)

But first! What is scaffolding?



Scaffolding

In 1976, David Wood (with Jerome Bruner and Gail Ross) are credited with creating the term scaffolding in education.

Their article “The role of tutoring in problem solving” describes scaffolding as:

“This scaffolding consists essentially of the adult “controlling” those elements of the task that are initially beyond the learner’s capacity, thus permitting him to concentrate upon and complete only those elements that are within his range of competence...It may result, eventually, in development of task competence by the learner at a pace that would far outstrip his unassisted efforts.”

–pg 90

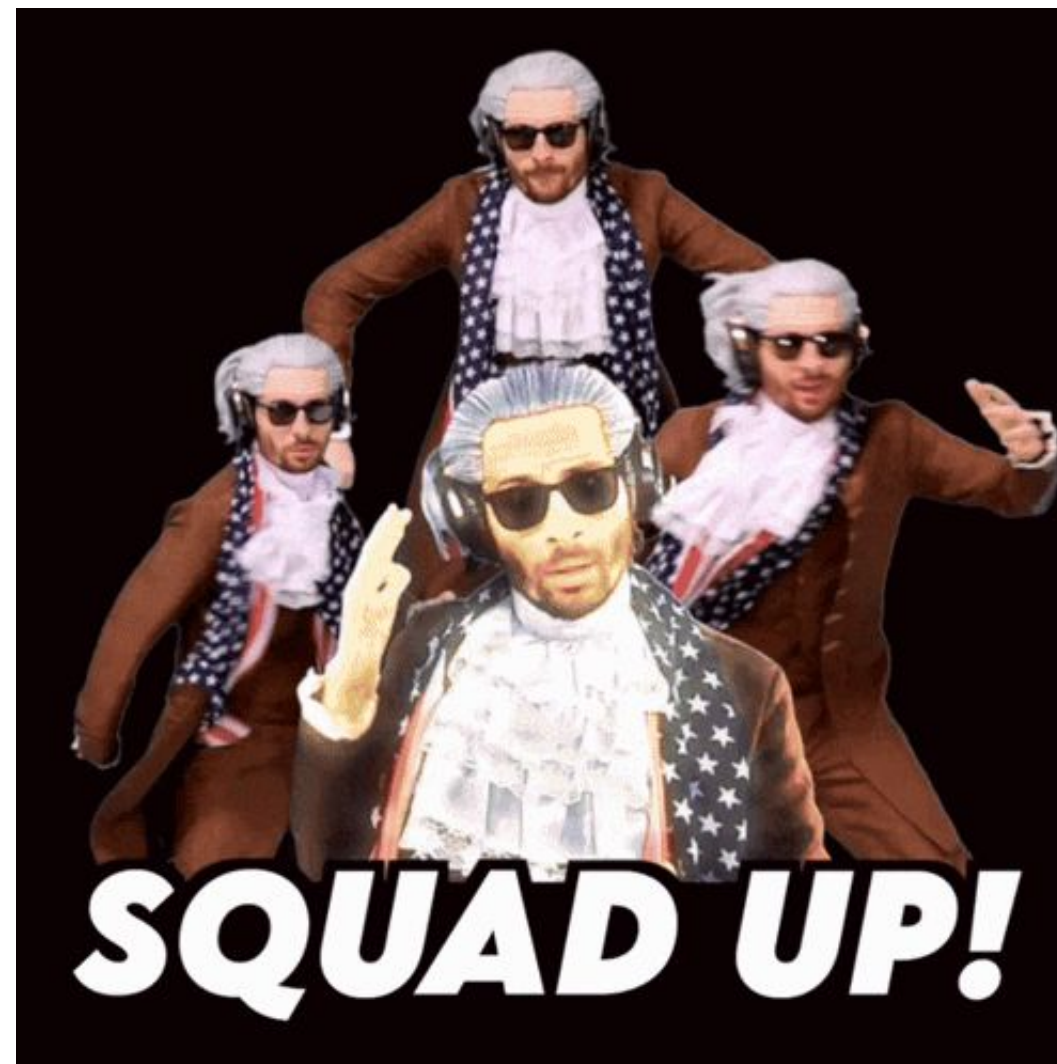
Airplanes and MPL

- Adapted from an old JA lesson I once saw when I taught on-level high school econ.
- All you need is a stack of 10–20 sheets of paper per group/row of students.
- 4–6 targets taped to the wall.
- A timer of some kind
- Potentially a group of student volunteers to act as government regulators.
- **I use this lesson as a bridge between marginal product of labor and marginal revenue product.**

Airplanes and MPL

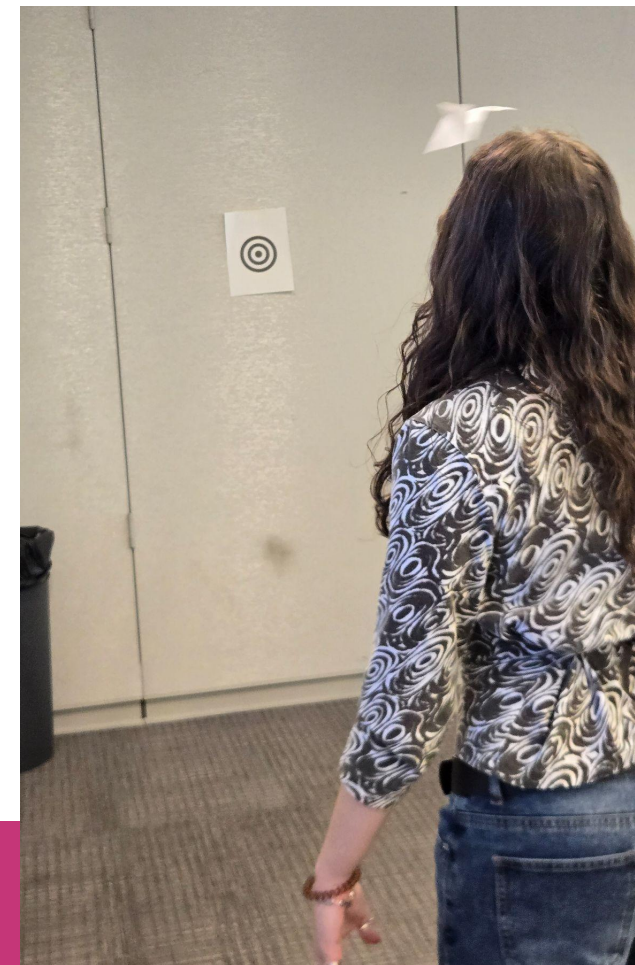
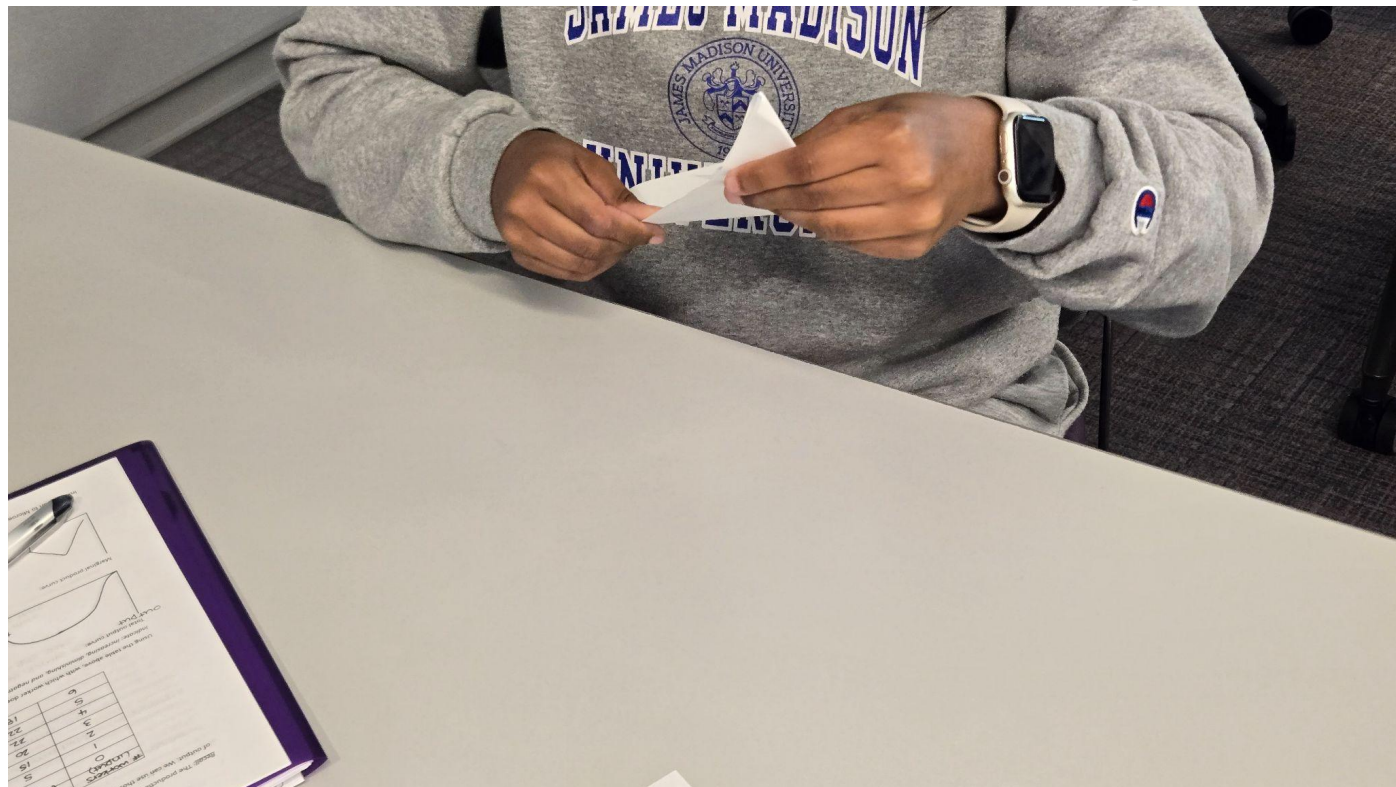
- I give students 30 seconds to make as many airplanes as possible.
- Each round correlates with the number of student workers
 - Round 1, one worker. Round 2, two workers, etc.
- At the end of 30 seconds of build time I provide 30 seconds to see how many of their airplanes hit the target.
- I keep a running tally of successful airplanes per team.

Let's put the “active” in active learning! (time permitting)



Airplanes and MRP

- After a few rounds I ask how productive each worker was.
- I then tell them the planes sell for \$100/plane and each worker costs \$50/day. We then calculate how many workers we should hire.
- We debrief by asking what could I have done to help productivity?



Spiralling

Jerome Bruner's work in 1959 advanced much of what is credited with structured spiralling in the classroom setting.

This was during the Woods Hole summit in Cape Cod in part of has become known as the "Sputnik Moment" in education.

Bruner's "The Process of Education" stated:

"A curriculum as it develops should revisit these basic ideas repeatedly, building upon them until the student has grasped the full formal apparatus that goes with them."

–pg 13

Bruner referred to the resiting of basic ideas repeatedly as the "spiral curriculum"

Tips for Spiralling

- Start with what key concepts you want to address later on.
- Hammer those concepts when you initially cover the introductory topic.
- Reinforce those same concepts while expanding on them later in your course.
- Be sure to spiral back to them throughout the course rather than just when you come to the topic again.



Supply

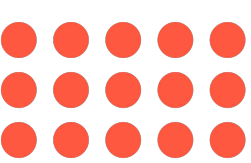
Δ supply vs. QS

Resource markets

Demand

Δ demand vs QD

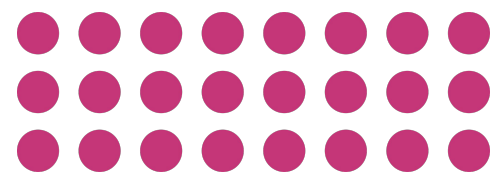
AD model





Assessment as Learning: Beyond the Grade

**Jamie Wagner,
University of Nebraska at Omaha
jfwagner@unomaha.edu**



Assessment as Learning

“In the absence of feedback, people will fill in the blanks with a negative. They will assume you don’t care about them or don’t like them.”

–Pat Summitt, *Sum It Up: A Thousand and Ninety-Eight Victories, a Couple of Irrelevant Losses, and Life in Perspective.*



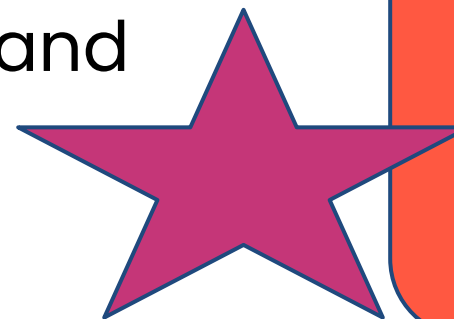
Suppose you want
to go to Disney
World—how would
you get there?





WHAT IS ASSESSMENT?

- An assessment is a tool or process used to measure, evaluate, or document a learner's knowledge, skills, attitudes, or performance.
- Assessments help instructors, trainers, and organizations determine whether learning objectives have been met and identify areas for improvement.



Purpose-driven: Assessments exist to support learning, inform decisions, and improve performance.

Variety of forms: They can be formal (quizzes, tests, rubrics, projects) or informal (observations, discussions, self-reflections).

Aligned with objectives: Effective assessments directly measure the skills or knowledge defined in the learning objectives.

Feedback-focused: Good assessments provide actionable feedback to learners and instructors, helping guide next steps.

Formative Vs. Summative Assessments

Formative Assessments

- Use DURING learning (FOR learning)
- Previous understanding:
 - Coding⇒ meaningful learning
- Current understanding
 - Retrieving⇒ meaningful learning
- We already knew that frequent quizzing can measure learning...
- But we now know that it can also enhance learning....

Summative Assessments

- Evaluate overall achievement or mastery at the end
- Main focus of college instructors
 - exams, finals, final projects, standardized tests, etc.
- This is important to do but we often think of this as the only assessment

**With a neighbor next to you
write down as many formative
assessments as you can think
of.**



Example: Challenging Questions

[MoneyWatch](#)

With food stamps set to dry up Nov. 1, SNAP recipients say they fear what's next

By [Aimee Picchi](#), [Mary Cunningham](#)

Updated on: October 28, 2025 / 9:53 AM EDT / CBS News

Roughly 42 million Americans rely on food stamps that arrive every month on their electronic benefit transfer cards. On Nov. 1, that aid is set to abruptly stop amid the ongoing U.S. government shutdown, potentially leaving households scrambling to figure out how to put

1. Which component of GDP does this affect? Explain.
2. Who is most affected by this? Explain
3. How will this impact the economy? Explain using economic terms.

Example: Challenging Questions

Giovanni's Production Possibilities Schedule		Jorge's Production Possibilities Schedule	
Pounds of Green Beans	Pounds of Corn	Pounds of Green Beans	Pounds of Corn
0	160	0	320
40	120	20	240
80	80	40	160
120	40	60	80
160	0	80	0

If Giovanni and Jorge both specialize in the production of their respective low-cost goods, then the total production of corn equals _____ pounds and the total production of green beans equals _____ pounds

Example: Challenging Questions

- Throughout the semester I have Challenging questions–think of them like a pop quiz.
- I get students into groups (in a variety of ways) and ask them hard calculation questions or application questions. They generally **STRUGGLE**
- They turn in their work with all names on it.
 - If the student is there they get full points if not 0 points (attendance check–I only keep top 10)
- We go over all answers as a group (very much like a think-pair-share)

**With a neighbor next to you
write down as many formative
assessments as you can think
of.**

Let's share these!

Examples of Formative Assessment

- In class discussions
- low stakes quizzes
- polls
- surveys
- exit tickets
- “you asked I answered”
- homework
- self-assessment
- peer assessment

And so many more!

The goal is to find out where students are missing the information or learning gaps.

You need to do this FREQUENTLY! But that doesn't mean that you have to increase your grading.



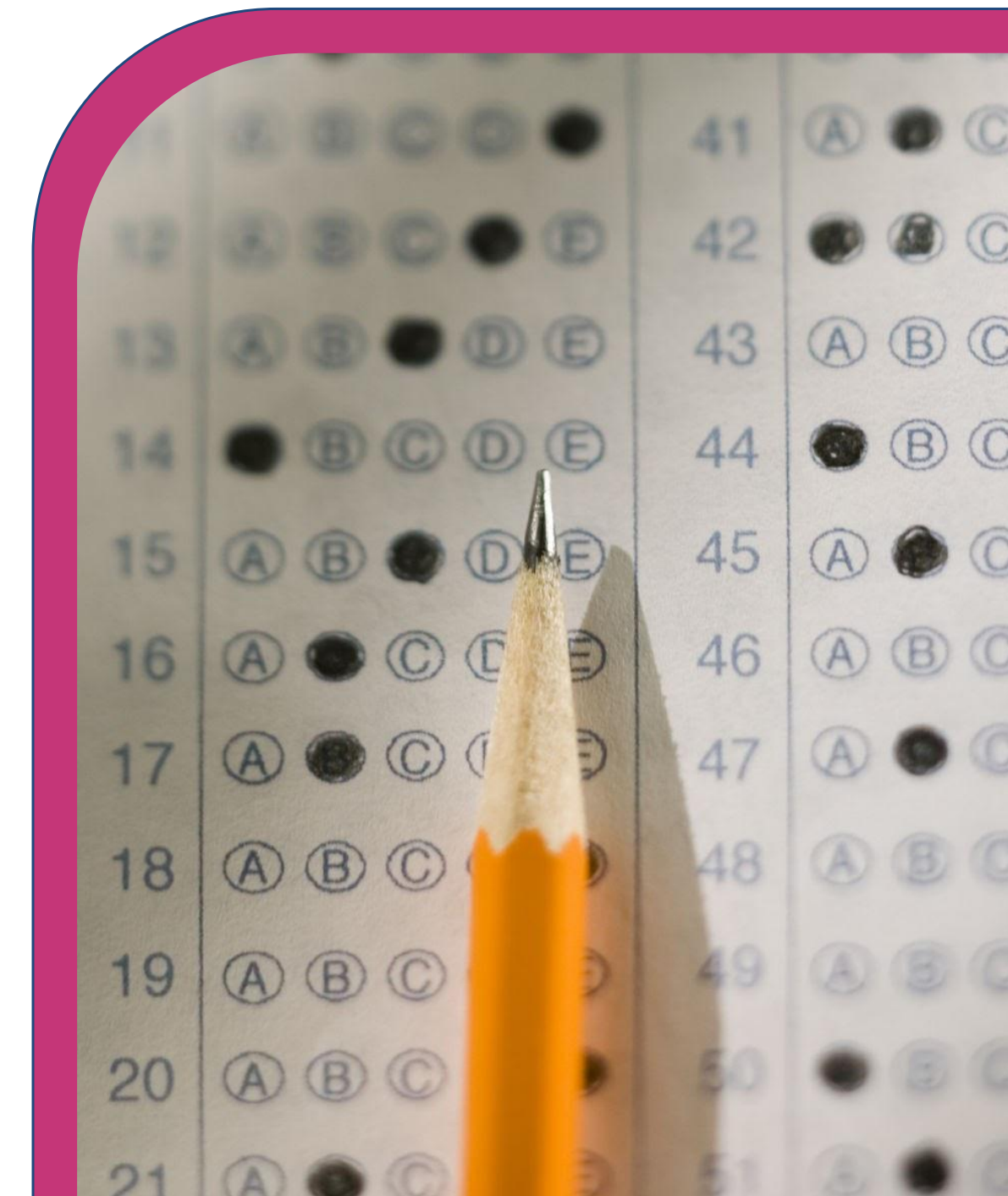
Designing an Assessment (typically a Summative Assessment)

Design with the end in mind so your assessments measure the right skills and knowledge.

- 1. Clarify the big picture: What should participants be able to demonstrate by the end?”**
- 2. Plan the Assessment Structure**
- 3. Ensure Alignment Without Overlap**
- 4. Incorporate Real-World Contexts**
- 5. Build in Feedback and Flexibility**
- 6. Pilot and Refine**

Benefits of a Multiple Choice Assessment

- **Reduced bias—provides an objective way to measure knowledge.**
- **Ease of providing feedback to both the assessment writer and the person taking the assessment.**
- **Ability to assess a large amount of content vs. a small amount of content with written assessments.**
- **Assess the knowledge and application of a large number of people with nearly no additional costs (including time).**



Cognitive Levels for Assessment Items

Recognition and understanding

This is a basic question that asks responders to recall what they know.

Explicit Application (Applied Reasoning)

Using higher cognitive levels of the concepts that are directly mentioned.

Implicit Application (Scenario/ Interactions)

Using higher cognitive levels of the concepts that are indirectly mentioned.



Creating an Assessment Map

- **Iterative process**
- **Split of knowledge vs. application**
- **Weight of topics**
- **And more...**

**More on this in
a bit plus an
example and
template for
your use**

Table: Guidelines for writing, revising, or Selecting Multiple Choice Questions (Walstad, 1998)

1. The stem should present one central problem or concept and relevant qualifying phrases.
2. The stem should include all words that would otherwise appear in each alternative.
3. The stem and alternatives should be written as clearly and simply as possible with words whose meaning are clear to students.

Table: Guidelines for writing, revising, or Selecting Multiple Choice Questions (Walstad, 1998)

4. Alternatives should be homogenous in form, have a consistent grammatical structure and be in logical order.
5. Alternatives should not provide irrelevant clues to the correct answer because of response length, repetition of phrases, or grammar.
6. Alternatives should not use “all of the above,” “none of the above,” or a type of “some of the above” as possible responses.

Table: Guidelines for writing, revising, or Selecting Multiple Choice Questions (Walstad, 1998)

7. The stem should not be negatively stated with words such as not, least, incorrect, or except.
8. Each item should be independent so that answering one item does not help in answering another item.
9. The item should be only one correct or best answer, but all distractors should be plausible.

Writing Assessment Items

(Walstad, 1998)

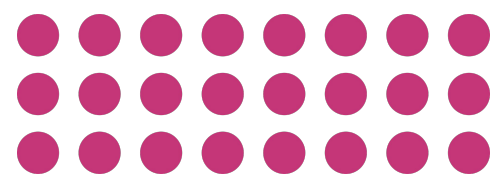
**It's hard work to
do this!**

- “All of the above,” “None of the above”, or “Some of the above” (e.g., “both A and C”) alternatives violate the rule that responses should be independent and mutually exclusive .
- Negative wording requires a change in mental set and tends to be more confusing for test takers.
- Answer alternatives (also called distractors) should be realistic and plausible.
- Avoid True/False questions. These rely heavily on guessing rather than knowledge.
 - Rewrite True/False questions to fit a multiple choice question model.



THANK YOU

**Be on the lookout for more
Econ Plays from the Econ
Playbook!**



Use the slides after this to make a copy/paste and put them in your section. You can change things up and if you hate the colors that's no problem we can adjust that too!

TYPES OF

SKI

Skiing comes in a variety of styles, each with its own set of challenges and sensations. Alpine skiing includes descending steep slopes and is usually done at ski resorts. Cross-country skiing emphasizes endurance, with skiers traversing flat or steep terrain on maintained paths. Tricks, leaps, and stunts are common in freestyle skiing, which is

Alpine Skiing

Cross-Country Skiing

Freestyle Skiing

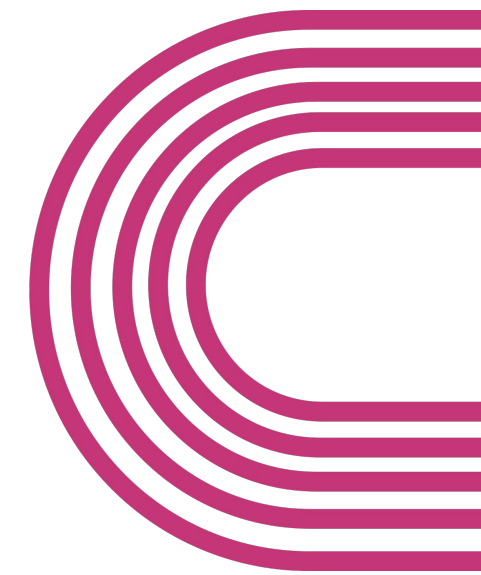
Ski Jumping



SKI

EQUIPMENT

Ski equipment includes important items meant to assure safety, performance, and comfort on the slopes. The key pieces are skis, which vary in length and kind based on the skiing discipline, and bindings, which attach the boots to the skis. Ski boots provide stability and control, whereas poles aid with balance and steering. In snowy circumstances, protective gear such as helmets and goggles help to ensure safety and visibility.



ESSENTIAL ••SKILLS IN SKIING••

Skiing requires balance, control, and perfect technique to provide a safe and pleasant experience. Beginners must initially learn to balance while gliding and form a firm stance with knees slightly bent and weight evenly distributed. Turning and stopping are essential abilities that are frequently practiced using tactics such as the snowplow or parallel turns.

HEALTH BENEFITS OF SKIING

Skiing has various health benefits, making it a great full-body workout and enjoyable way to stay active. Physically, it increases cardiovascular endurance, develops muscles (especially in the legs, core, and arms), and improves balance, flexibility, and coordination.



TIPS FOR SKIING

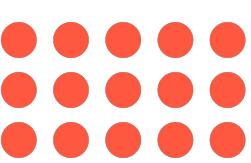
Start by wearing the necessary equipment, including boots, skis, and appropriate safety equipment such as a helmet and goggles. Beginners should take lessons from skilled instructors to develop basic skills and gain confidence. Always warm up before skiing to relax your muscles and avoid injury.



Wear Proper Gear

Start on Easy Slopes

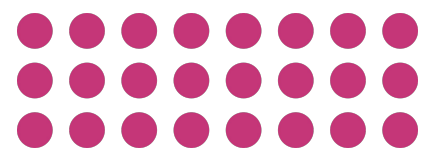
Check Equipment



Warm Up

Master the Basics

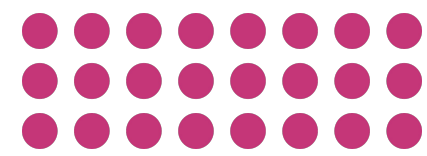
Check Weather



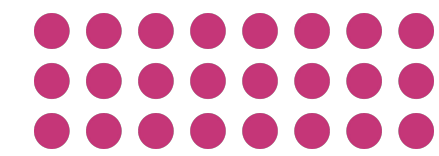
ENVIRONMENTAL

●●●●● IMPACT

Skiing, while a popular leisure activity, has a significant environmental impact, especially in places with ski resorts. The construction of ski slopes, lifts, and resort facilities frequently results in deforestation, habitat damage, and soil erosion, which can disturb local ecosystems. Artificial snow production, which is often employed in locations with limited natural snowfall, uses a lot of water and energy, adding to resource depletion and carbon emissions.



CONCLUSION



Skiing is a thrilling and flexible winter sport that combines physical exercise, skill, and pleasure of the outdoors. It offers a variety of disciplines, including alpine, cross-country, and freestyle skiing, to accommodate to a wide range of interests and skills. Skiing has numerous health benefits, including enhanced fitness and mental well-being, but it also promotes social connection and a sense of adventure. While the sport has an environmental impact, sustainable approaches are progressively being used to





THANK YOU

www.reallygreatsite.com

