

Is it Time to Flip the Classroom?

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Slides posted at

www.navigatingaccounting.com/presentation/presentations

Is it Time to Flip the Classroom?

Agenda

- What is flipping and why flip now?
- Flip challenges
- Hands on illustrations
 - Your balance sheet: accounting judgments
 - Intel and Starbucks: applications of basic concepts
- Motivating preparation and participation (time permitting)
- Wrap up
 - What, if any, valuable lessons did you learn?
 - What, if any, actions are you ready to seriously pursue?

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What is Flipping – Peer Instruction



<http://www.youtube.com/watch?v=WwsIBPj8GgI>

"I thought I was a good teacher until I discovered my students were just memorizing information rather than learning to understand the material.

It was my teaching that caused students to fail!"

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What is Flipping – New Roles

- Students' roles
 - Move as far as possible up the thinking hierarchy outside of class, given time constraints and available resources.
 - Move further up the hierarchy during class by participating in interactive activities that require faculty involvement.
- Faculty's roles
 - Facilitate interactive discussions, help students locate and utilize resources, and develop class activities and assignments that move them further up the hierarchy.
 - Develop ways to assess higher-level thinking that provide appropriate feedback, motivation, and evaluations.

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What is Flipping – the Flip Continuum

Keep learning new flips

- The boundaries of what can and can't be learned effectively through electronic media without significant faculty-student interaction will continue to evolve with new technologies and learning models.



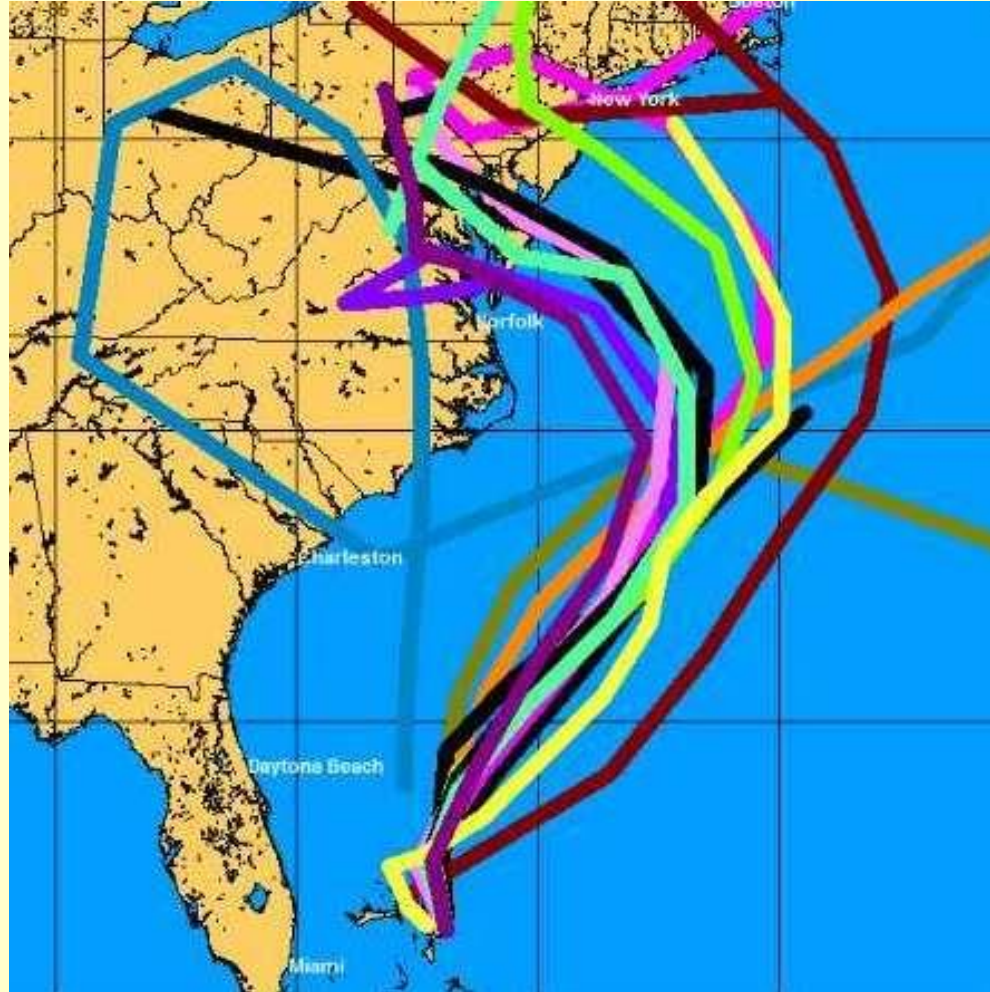
<http://www.fanpop.com/spots/jacob-black/images/8583965/title/taylor-lautner-flips-rolling-stones-photo>



<http://gymnastics.about.com/od/famousgymnasts/ig/Shawn-Johnson-Gallery/Shawn-Johnson-Flip-.htm>

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Why now – MOOC Storm



Hurricane Sandy spaghetti chart

<http://www.northcountrypublicradio.org/news/npr/163725684/computers-pinch-of-art-aid-hurricane-forecasters>

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Why now – Thinking Hierarchy

- The first and lowest level of the hierarchy is the capacity to answer questions where experts agree on the answers.
- The second level of the hierarchy is the capacity to answer questions where experts can reasonably disagree on the answers and where arguments are informed to the extent they are grounded in logic, theory, and facts.
- The third and highest level of the hierarchy is the capacity to be innovative.

Teaching converges with research as you move up the hierarchy!

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Why Now – Outsourcing

Flip or be flipped

- Human capital based solely on the lowest level of the thinking hierarchy is becoming commoditized.
- Low-cost providers ultimately win in commodity markets, often by achieving economies of scale.
- Students and faculty who fail to move up the thinking hierarchy risk being flipped out of their jobs.
 - Students risk having their jobs outsourced to technology or developing countries.
 - Faculty risk having their jobs outsourced to technology.

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Why Now – Outsourcing

Flip or be flipped

- To free up time during class to move up the thinking hierarchy and to come prepared for related discussions, students must learn the prerequisite knowledge and skills prior to class.
- Thus, for students to stay competitive by moving up the thinking hierarchy, we and our students must continue moving up the flip continuum.

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Challenges – Discussion



<http://bestfunnyaccidents.com/gymnastics-fail-blog-funny-flip-bloopers-gone-wrong-accidents.html>

What challenges do you expect you and your students to confront if you flip your classroom?

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Challenges – Easier Said than Done

Motivation and Resources

- Students must be motivated to assume additional responsibilities associated with flipping the classroom and have access to the resources and guidance needed to succeed.
- Faculty must be motivated to flip the classroom and have the resources to succeed.
- The education system needs to commit to moving students further up the thinking hierarchy and supporting the development of performance measures that faithfully represent progress towards this goal.

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Challenges – Easier Said than Done

Knowledge and Skills

- Faculty must identify resources and develop guidance that help students learn foundational knowledge and skills prior to class, broadly defined to be any forum where students interact with faculty.
- Faculty must identify activities that help students move further up the thinking hierarchy during class and acquire the requisite skills to facilitate these activities.
- Students must learn how to learn foundational knowledge and skills prior to class and how to participate in higher-level thinking activities during class.

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Hands On Illustration – Accounting Judgment (Level 2)

Exercise materials

PowerPoint and OneNote slides and teaching note video

<http://navigatingaccounting.com/content/instructors-forum#part-2-asset-liability-and-owners-equity-measures-anchor>

Your Balance Sheet Exercise

<http://www.navigatingaccounting.com/exercise/exercise-bswis050>

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Hands On Illustration – Applications of Basic Concepts (Level 1)

Exercise materials

PowerPoint and OneNote slides and teaching note video

<http://www.navigatingaccounting.com/content/instructors-forum#part-7-income-measures-anchor>

Intel Exercise

<http://www.navigatingaccounting.com/exercise/exercise-iswisscoe021>

Starbucks Exercise

<http://www.navigatingaccounting.com/exercise/exercise-iswbnisbse060>

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Hands On Illustration – In-Depth Analyses (Level 2)

Exercise materials

Analyzing Income Statements Across Time and Industries

<http://www.navigatingaccounting.com/exercise/industry-comparisons-exercises-series-04#exercise-2-income-statements-and-return-on-assets-anchor>

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Hands On Illustration – Discussion

- Which parts of the exercise centered on terms, concepts, procedures, processes, or problems where experts would agree on the answers to related questions?
 - How else could you have taught these issues?
 - To what extent, if at all, would you expect students' understanding of the issues to differ for these alternatives?
- Which parts of the exercise centered on issues where experts can reasonably disagree on the answers to related questions?
 - How, if at all, would you expect these exercises to change student's perceptions about accounting?
 - What are similar misconceptions students bring to other courses that are difficult to overcome and hinder learning?

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Hands On Illustration – Discussion

- To what extent would you expect students to be willing and ready to participate in the discussions?
 - What aspects of the content promote participation?
 - What aspects of the discussion format promote participation?
- What are the essential elements of these exercises?
 - To what extent would exercises that include these elements be effective in other areas besides financial accounting?
 - Outline an exercise for a topic in another area where students face similar learning challenges.

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Hands On Illustration – Discussion

- Are you ready and willing to seriously consider flipping?
- What are your concerns?

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Motivating Preparation and Participation – Challenges

- **Responsibilities**

- They don't know their responsibilities.

**TODAY'S
FOCUS**

- **Motivation**

- They aren't sufficiently motivated to meet them.

- **Resource constraints**

- They don't have access to the resources needed to meet them or don't know about available resources.

- **Strategies**

- They don't have effective strategies to use resources.

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Motivation – Responsibilities

Key things students should bring to class

- Preparation:
 - Students are responsible for preparing diligently for class by completing the daily assignments.
- Attitude:
 - Students are responsible for bringing a positive learning attitude to class each day that helps create a vibrant learning environment.

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Motivation – Responsibilities: Root Causes

- Why aren't students motivated to accept their responsibilities?
 - To what extent are the following causal factors:
 - Systemic bad habits?
 - Insufficient interest in accounting or your course?
 - Competing interests?
 - Ineffective incentives?
 - Others?
- How can we mitigate these factors?

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Motivation – Responsibilities: Systematic Bad Habits

The problem

- Students have bad habits and don't know what their missing:
 - They often aren't being held adequately accountable for preparation in other courses.
- They don't realize how stimulating and effective classes can be when everyone comes to class highly prepared.
- We have a marketing problem – we are trying to sell a high priced product that is not understood:
 - Students understand the costs of preparing rigorously but they severely under estimate the benefits.

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Motivation – Responsibilities: Systematic Bad Habits

Mitigating the problem.

- Continuously communicate the benefits of rigorous preparation through words and deeds.
- Raising this bar initially brings considerable resistance and results in significant declines in enrollments and teaching evaluations.
- However, as students begin to experience the benefits, they spread the word and gradually there is a ripple effect.
- Why can we be optimistic that this will be the outcome?
 - Generally teachers who offer challenging and rewarding courses attract the best students, have high enrollments, and get outstanding teaching evaluations.

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Motivation – Responsibilities: Systematic Bad Habits

Excerpt from course map (syllabus) for core course

- The homework assignments are very demanding and we fully expect most of you to come to class still struggling to gain closure and some of you to come totally confused.
- If you come to class prepared but confused, you may not feel comfortable, but there is a good chance you will leave with closure on most of the session learning objectives.
- By contrast, if you come feeling comfortable but not prepared, you will surely leave totally confused.

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Motivation – Responsibilities: Insufficient Interest in Course

Problem

- Students find accounting or your course far too boring and largely irrelevant to their future interests.

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Motivation – Responsibilities: Insufficient Interest in Course

Potential root causes of the problem.

- Students are correct:
 - Accounting or our course is boring and largely irrelevant to their futures.
- They are wrong but we are not much wiser:
 - We fail to fully grasp how critically important accounting or our course is to society and to our students' futures.
- We get it but we don't communicate it effectively:
 - We appreciate how vital accounting or our course is but fail to convey our enthusiasm and insights in ways students find relevant to their current and future endeavors.

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Motivation – Responsibilities: Insufficient Interest in Course

Mitigating the problem

- Develop and share a deep passion for accounting or your course:
 - Continually seek a broader understanding of the role of accounting or your course in society and share what you learn with your students enthusiastically.
- Repeatedly emphasize relevance:
 - Continually motivate the relevance of the course goals, daily learning objectives and assignments to practice settings students find relevant and to their careers and personal finances.

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Motivation – Responsibilities: Insufficient Interest in Course

Excerpt from assigned reading for core course

- By the time you complete this course, you will likely have a much different image of accountants than you started with, and hopefully you will begin to entertain the idea that you should learn to think like an accountant, even if you choose not to become one.
- You will learn that accounting is the language of business and that the public's image of record keeping and other procedures associated with accounting is only the grammar. In particular, a subtle aspect of accounting, like nuances in other languages, is that it both depicts and influences business reality and culture.

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Motivation – Responsibilities: Competing Interests

The problem

- Your course is a low priority relative to:
 - Social or leisure activities
 - Family obligations
 - Job obligations
 - Other courses
 - Other interests

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Motivation – Responsibilities: Competing Interests

Mitigating the problem

- Elevate students' enthusiasm for accounting or your course.
 - As discussed earlier
- Seek synergies with students' other interests:
 - Connect assignments to their work, other courses, personal finances, or social and leisure activities.
 - Promote curriculum changes to these ends.
- Promote more effective use of time and other resources.
- Manage course incentives more effectively.
 - As discussed next

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Motivation – Responsibilities: Ineffective Incentives

The problem

- The point system used to determine course grades and the standards to earn grades could be more effective at promoting pre-class preparation.
- The things we do to foster ownership of the course and loyalty to the course could be more effective.
- The things we do to promote striving for the personal satisfaction that is gained from learning for learning's sake could be more effective.
- The things we do to encourage students to seek peer recognition for “being smart” and build a learning community could be more effective.

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Motivation – Responsibilities: Ineffective Incentives

Mitigating the problem.

- Raise the standards to earn grades and use competitive rather than absolute standards for the higher grades.
- Encourage group work and take other steps to ensure a healthy balance between cooperation and competition.
- Where appropriate, assign more points to individual and/or group class-preparation assignments and grade them discriminately and competitively.

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Motivation – Responsibilities: Ineffective Incentives

The incentives must fit the context.

- Introductory course:
 - 30% of grade is based on group assignments.
 - 10% is based on other class participation.
 - 60% is based on exams.
 - The process used to award grades has incentives to both compete and cooperate.
- Advanced course:
 - 100% of grade is based on weekly group assignments.

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Motivation – Responsibilities: Ineffective Incentives

Minimize free rider problems

- Undergrad introductory course:
 - Group selection:
 - Initially students can form their own groups or be assigned to groups randomly.
 - They have the option to reform groups at midpoint.
 - Two 360 evaluations that can significantly affect the scores group members receive on assignments.
 - A group is randomly selected to present and defend its response to assigned questions. A randomly selected member represents the group. Everyone in the group gets this person's participation score.

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Motivation – Responsibilities: Ineffective Incentives

Assign more points to participation and grade discriminately

- Provide alternative forums: class versus on-line blog.
- Cold call and/or use clickers to keep students engaged.
- Probe deeply and frequently:
 - Reward students for offering alternative hypotheses and for providing facts, theories and compelling logic that refutes or supports them.
 - Reward students for connecting their points to those raised earlier in the discussion by others (promotes listening).
 - Ask students to present the strongest counter arguments to their arguments.
- Probing this class motivates better preparation for next class.³⁵

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Motivation – Responsibilities: Ineffective Incentives

Enhancing course ownership and loyalty

- Share personal motivations, commitment and enthusiasm about the course.
- Share responsibility and accountability for the course's success.
- Set high, relevant, and achievable goals and help students connect them to their personal goals, current events, and other courses.
- Establish trust through leadership and caring.
- Let students know when they are not meeting their responsibilities and encourage them to let you know when you are not meeting yours.

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Motivation – Responsibilities: Ineffective Incentives

Promote learning for learning's sake

- Don't allow "What is on the exam?" questions.
- Continually remind students that learning is more important than grades.
- Continually remind them that you are motivated to put more effort into teaching when you think they are in class to learn to become better managers and that you would be repulsed to learn that they were simply there to pass exams.
- Create stimulating discussions that have "after burn."
- Frequently ask in class, "What did you learn today?"

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Motivation – Key Lessons

- The two biggest success factors for a great learning experience are preparation and a positive attitude on the part of all involved.
- Students will under prepare and not succeed to the extent:
 - They don't fully comprehend their pre-class responsibilities.
 - They aren't sufficiently motivated to meet them.
 - They are motivated to meet them but don't have the resources to succeed.
 - They are motivated and have the resources but don't have strategies to succeed.

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Motivation – Key Lessons

- Our challenge is to understand the root causes behind these four factors and identify ways to mitigate them.
- These challenges will often be contextual, depending on:
 - Our schools' missions.
 - Our students' goals, experience, aptitudes, and aspirations.
- Our primary goal today has been to illustrate ways to identify and mitigate these problems.

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Wrap Up

- What progress did we make:
 - Identifying ways to flip the classroom?
 - Identifying the challenges associated with flipping and ways to address them?
 - Exploring the extent to which flipping is appropriate for various UT courses?
- What, if any, valuable lessons did you learn?
- What, if any, actions are you ready to seriously pursue?

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Aim High

Gold medalist flippers

Marva Collins



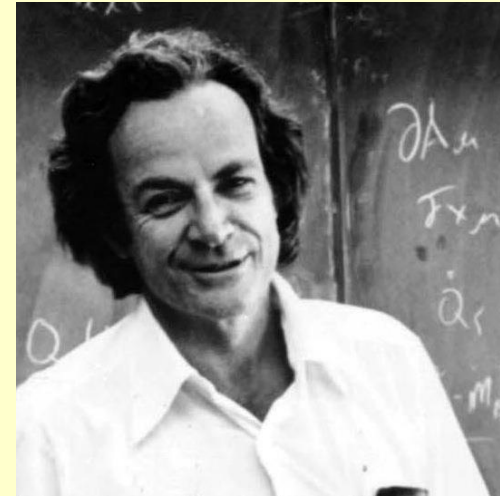
<http://www.marvacollins.com/biography.html>

Eric Mazur



<http://www.youtube.com/watch?v=WwsIBPj8GgI>

Richard Feynman



<http://uweanimation.blogspot.com/2011/03/interesting-scientist-richard-feynman.html>