Weathering the MOOC Storm
Moving Up the Flip Continuum

G. Peter Wilson
Boston College

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Slides posted at
www.navigatingaccounting.com/presentation/presentations#Teaching
Weathering the MOOC Storm
Moving Up the Flip Continuum

Agenda

- Preliminaries
- Flipped classroom
- Flip challenges
- Flip example
- Closing thoughts
“Online education is about to change the entirety of education in the elite university system,” says Roger Faxon, a board member of Johns Hopkins University, Baltimore. “The question is really: is the faculty ready because the students are ready?”

…..

Tests of this so-called “flipped classroom” have been encouraging.

“Education: From blackboard to keyboard." The Financial Times 18 Jan 2013

www.ft.com/cms/s/0/8de6072c-60a0-11e2-a31a-00144feab49a.html#axzz2JBvqf6zM
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Preliminaries – Are we ready?

Hurricane Sandy spaghetti chart

Ready for What?

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!
"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!"

http://www.youtube.com/watch?v=WwslBPj8GgL
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Flipped Classroom – 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.
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://gymnastics.about.com/od/famousgymnasts/ig/Shawn-Johnson-Gallery/Shawn-Johnson-Flip-.htm
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.
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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Flip Challenges – Easier Said than Done!

http://www.youtube.com/watch?v=jQT3dGTMCS4
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.
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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Flip Challenges: Motivating Preparation and Participation

- **Responsibilities**
  - Students don’t know their responsibilities.

- **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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Flip Challenges: Motivating Preparation and Participation

Learn from the masters

Marva Collins
http://www.marvacollins.com/biography.html

Richard Feynman
http://uweanimation.blogspot.com/2011/03/interesting-scientist-richard-feynman.html
Session 5: Income statements and statement of changes in owners’ equity

Watch

"What Do I See: Income Statements?" videos

http://www.navigatingaccounting.com/book/income-statements#wis_is

Additional guidance: When preparing for Session 5, we recommend you: (1) watch the express route paying particular attention to the last take-away: “What should you do next?” (2) Try the exercises following the guidance in the “What should you do next?” take-away.

Do

"What Do I See: Income Statements?" exercises.

Go to the exercise link under the Express video on the web page.

- **Practice problems**
  Exercises is.wis.is.010, is.wis.is.020, and is.wis.is.040

- **Assigned problem**
  Exercise is.wis.is.030

*We will go over this exercise during class if we have time left after discussing is.wis.scoe.021.*
Students watch videos to learn basics prior to class and review them later.

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Flip Example – Class Preparation: Income Statement Basics

- Students watch videos to learn basics prior to class and review them later.
Students tackle exercises prior to class and identify areas where they are having difficulty.

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Flip Example – Class Preparation: Income Statement Basics

EXERCISES

is.wis.scoe.021 Applying a hierarchical approach to measuring Intel’s performance

These questions pertain to Intel’s consolidated financial statements in their fiscal 2011 annual report. See the exercise materials for this section. No solution is provided.

Part I: Owners’ Equity Change Map

(a) Use Intel’s fiscal 2011 annual report to locate its consolidated balance sheets and consolidated statements of stockholders’ equity.
(b) Complete the owners’ equity change map template on the next page.

Part II: True or False

(c) True or False: Intel received more contributions from owners than it distributed to owners in dividends and stock repurchases during fiscal 2011.
(d) True or False: There was no change in owners’ equity during fiscal 2010 or 2011 due to changes in accounting policies or restatements.
(e) True or False: Intel’s other comprehensive income was positive during fiscal 2010 and negative during fiscal 2011 (representing a loss).
(f) True or False: Intel’s net profit was positive during fiscal 2010 and negative during fiscal 2011 (representing a loss).
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Flip Example – Classroom Activities: Refining Basics

Students are polled at the start of class to identify places in the assignment where they need help before moving on to more challenging applications.

- Open Intel’s annual report to the balance sheet
- Be prepared to identify parts of Exercise is.wis.021 you would like to discuss
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Flip Example – Classroom Activities: Refining Basics

Class works on problem areas as quickly as possible. Here, locating OCI.
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Flip Example – Classroom Activities: Extending Basics

Use “clicker questions” to assess students’ understanding of basic concepts or their capacity to apply them in other contexts.

Question

AT&T’s 2011 consolidated other comprehensive income is:

a) $4,651  b) $4,412  c) $468  d) $467  e) none of above

Total Comprehensive Income, net of tax:

Net income attributable to AT&T $3,944
Other comprehensive income attributable to AT&T per above 468
Comprehensive income attributable to AT&T $4,412

Net income attributable to noncontrolling interest 240
Other comprehensive income (loss) attributable to noncontrolling interest per above (1)
Comprehensive income attributable to noncontrolling interest $239
Total comprehensive income $4,651

AT&T Inc, 2011 Annual Report, Page 61
Session 9: Group assignment 2

Watch

"How Do I Use the Numbers: Analyzing Financial Statements"

http://www.navigatingaccounting.com/book/1

Additional guidance: As you work your way through the assignment, you might find it useful to watch menu items (related to topics you are working on) in the scenic route videos for the “What Do I See?” modules. To this end, you can use the descriptions below the scenic routes in the Chapter Map to locate appropriate scenic routes.

Do

Industry Comparisons Exercises: Series 04

Exercise 2: Analyzing Income Statements


This link takes you to the Industry Comparisons Exercises: Series 04 web page. Scroll down the page and click on Exercise 2: Analyzing income statements.

Report Guidance and Submission Process

Follow the directions on pages 12 - 16.
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Flip Example – Class Preparation: Analysis

<table>
<thead>
<tr>
<th>Exercise 2: Analyzing Income Statements</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Topics:</strong></td>
</tr>
<tr>
<td>▪ Level 1: Analyzing Comprehensive Income- ROE-CI</td>
</tr>
<tr>
<td>▪ Level 2: Analyzing Major Categories- ROE</td>
</tr>
<tr>
<td>▪ Level 3: Analyzing Significant Subcategories- DuPont Model</td>
</tr>
<tr>
<td>▪ Level 4: Analyzing Line Items- Common-Size Statements and Revenue Growth</td>
</tr>
<tr>
<td>▪ Overall Financial Performance Across Companies and Industries</td>
</tr>
</tbody>
</table>

**Exercise Materials:**

- **Exercise 2 [pdf]**
- **Excel template 2 [xlsx]**  **Excel template 2 [xls]**
- **Word template 2 [docx]**  **Word template 2 [doc]**

**Videos:**

- **Searching and Locating Annual Reports 1 [10 minutes]**
- **Using Excel 1: Basics [26 minutes]**

Online resources for group assignments
### Comparing Income Statements Across Industries

Students must collect some of the inputs for their analyses from companies’ disclosures.

<table>
<thead>
<tr>
<th></th>
<th>Ryanair Holdings plc</th>
<th>Microsoft Corporation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>INCOME STATEMENTS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Net revenues</strong></td>
<td>2,988</td>
<td>58,437</td>
</tr>
<tr>
<td><strong>Cost of goods or services sold</strong></td>
<td>0</td>
<td>60,420</td>
</tr>
<tr>
<td><strong>Gross profit</strong></td>
<td>2,988</td>
<td>12,155</td>
</tr>
<tr>
<td><strong>Other operating income and (expenses)</strong></td>
<td>(2,586)</td>
<td>11,598</td>
</tr>
<tr>
<td><strong>Operating profit</strong></td>
<td>402</td>
<td>(25,919)</td>
</tr>
<tr>
<td><strong>Other income and (expenses)</strong></td>
<td>(61)</td>
<td>(26,551)</td>
</tr>
<tr>
<td><strong>Profit before taxes</strong></td>
<td>341</td>
<td>20,363</td>
</tr>
<tr>
<td><strong>Income tax expense</strong></td>
<td>36</td>
<td>(542)</td>
</tr>
<tr>
<td><strong>Net profit (loss) from continuing operations</strong></td>
<td>305</td>
<td>19,821</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>SELECTED FINANCIAL DATA</strong> (controlling and non-controlling)</th>
<th>Ryanair Holdings plc</th>
<th>Microsoft Corporation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>3/31/2011</strong></td>
<td>404</td>
<td>14,389</td>
</tr>
<tr>
<td><strong>Beginning total assets</strong></td>
<td>12,522</td>
<td>17,167</td>
</tr>
</tbody>
</table>
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Flip Example – Class Preparation: Income Statement Analysis

Part 2 Question

- Compare and contrast the financial performance for the five companies in the data template during the four years in the template, ignoring fiscal-year-end differences.

Part 2 Guidance

- **Limit your analyses of the companies’ performances to:**
  - The ratios in the data template. Restrict your analyses to the ratios and related data within each level as indicated in the guidance below.
  - For levels 3 and 4 only, integrate your understanding of the companies’ businesses and the ways they were likely impacted by the financial crisis during this period. Your understanding of the companies’ businesses should be informed by related excerpts from the Management Discussion and Analysis (MD&A) section of the annual report.

- **Organize your responses with the following titles and guidance:**
  
  (a) **Level 1: Analyzing Comprehensive Income—ROE-CI**

  Consistent with its name, comprehensive income is the broadest performance measure reported by for-profit companies. This level one analysis is facilitated through the **equity ratio—comprehensive income** divided by average owners’ equity during the period (by the average of the beginning and ending balance sheet).

  Compute the companies’ ROE-CIs during the three years, ignoring:

Provide exercises and guidance to help students move up the thinking hierarchy
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Flip Example – Classroom Activities: Income Statement Analysis

Lead open ended interactive discussions during class
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Closing Thoughts – 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
Go for the Gold

- Prepare your students to compete globally by helping them learn higher-level thinking that promotes and leverages a commitment to freedom of thought, diversity, meritocracy, and risk taking.

- To the extent your students’ lives are enriched this way, yours too will be enriched.