Course Management – I
Instructional Strategies

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Teaching Methods at Business Schools

- Can be classified into 3 categories:
  - Instructor-Centered Methods
  - Interactive Case-based Methods
  - Experiential Learning Methods
- For each of these methods, we will examine:
  - Positives & Negatives
  - When are they effective?
  - How to improve effectiveness?
Four Accounting Courses @ Haas

- Financial Accounting – Core
  - Accounting rules underlying financial statements

- Managerial Accounting
  - Use of accounting information for decision-making and performance evaluation

Four Accounting Courses @ Haas (contd.)

- Financial Statement Analysis
  - Analyzing financial statements to access profitability and determine the value of the firm

- Corporate Financial Reporting
  - Advanced Financial Accounting – Beyond the Core
Instructor-centered

- The instructor is primarily responsible for conveying information. The most common format is where the instructor lectures to a group of students.

- Which of the four Accounting courses is best suited for a instructor-centered lecture format? Why?

When to use the lecture format?

- When there is a significant amount of technical information

- When students do not have a significant amount of experience and/or technical knowledge

- When the class size is large
What are some of the positive aspects of the lecture format?

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What are some of the positive aspects of the lecture format?

- Can present large amounts of technical information effectively
- Provides instructor maximum control of the learning experience
- Safe – there is little risk to the instructor as well as the students
- Can be presented to large audiences
- Others?

What are the negative aspects of the lecture format?

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What are the negative aspects of the lecture format?

- Students are passive and not intellectually engaged
- Given their short attention span, they tune out and it is difficult to get them to tune back in
- It does not provide immediate feedback about student learning
- It assumes all students are at the same level of understanding and learn at the same pace
- Others?

How to make lectures more effective?

- At the beginning of class:
  - Provide an agenda for the class lecture
  - Place the lecture in context – provide a structure that helps students connect the current lecture material with what they learned earlier and with what comes later
  - Create excitement for the class – explain the relevance of the class for managers
How to make lectures more effective? (contd.)

- During the lecture:
  - Use White Board
  - Watch body language – if they are tuning out, find out why – too easy/too complex. Perhaps, a JOKE!
  - Provided Guided Notes – instructor-generated notes that provide background material and cues in the form of blank spaces to insert key facts and answers to questions
  - Consider alternatives to PowerPoint

How to make lectures more effective? (contd.)

- Space information and mix it up
  Students learn key concepts better and retain more if they are presented in small dozes, interspersed with:
  - Questioning – Prepare a list of questions to ask the class as a whole as well as individuals
  - Real World examples – “Relevance” to the real business world is the key to improve interest in the material
  - Problem Solving – applying concepts to solving problems, especially in small groups – students sitting next to each other
How to make lectures more effective? (contd.)

- At the end of the lecture:
  - Provide conclusions/summaries to clarify and reinforce material presented
    Students (esp. MBAs) want to feel like they learned new insights and ideas that they did not have when they came in. Plan your punch line!
  - Ask for questions
  - End of lecture quizzes – only for undergraduates

How to make lectures more effective? (contd.)

- Have a project/exam/assignment that involves the application of the technical material presented in class. Make sure the details of the project requirements are presented on the first day of class - Example of Midterm Project in Financial Accounting

- Students are motivated to learn the technical material and think about its application to the project.

- Opportunities to bring research into the classroom – Example of Project in Corporate Financial Reporting
FINANCIAL ACCOUNTING (EWMBA 202A) PROJECT

InBev vs. Anheuser Busch

You will form a team of two students. Each student will pick a company to analyze. For questions marked “Group”, you will work together and provide one response.

1. (Group) Analyze the three most important factors that affect the profitability of firms within the beer industry.

2. (Individual) InBev is a publicly traded based in Leuven, Belgium and is one of the largest beer companies in the world. You are to analyze InBev’s financial statements for 2007.

   Using the model developed in Module 4 of the text, disaggregate ROE into its operating and nonoperating components. Discuss the impact financial leverage has on InBev’s ROE. Further, disaggregate RNOA into its components and analyze each of the components further to gain insights into the factors driving InBev’s performance.

   Using appropriate ratios, analyze the riskiness (short-term liquidity and long-term solvency) of InBev

   Note: InBev’s financial statements are prepared in accordance with the International Financial Reporting Standards (IFRS).

3. (Individual) Anheuser Busch is the largest US brewer and the producer of the world’s largest-selling beer brands, Budweiser and Bud Light. You are to analyze Anheuser Busch financial statement for 2007.

   Using the model developed in Module 4 of the text, disaggregate ROE into its operating and nonoperating components. Discuss the impact financial leverage has on Anheuser-Busch’s ROE. Further, disaggregate RNOA into its components and analyze each of the components further to gain insights into the factors driving Anheuser Busch’s performance.

   Using appropriate ratios, analyze the riskiness (short-term liquidity and long-term solvency) of Anheuser Busch.

   Note: Anheuser Busch’s financial statements are prepared in accordance with US GAAP.

4. (Group) From a reading of the footnotes, identify three areas where the accounting is different for the two companies. Briefly explain the differences.
5. (Group) Compare and analyze the profitability and riskiness of InBev and Anheuser Busch. InBev and Anheuser Busch use different formats and classifications for their financial statements. Make sure the ratios are comparable.

6. (Group) On June 11, 2008, InBev made a $65/share cash offer to purchase Anheuser Busch. Why is InBev interested in buying Anheuser Busch?
CORPORATE FINANCIAL REPORTING – GROUP PROJECT: PICKING STOCKS USING EARNINGS QUALITY SIGNALS

Note:

I am very grateful to Jung Hoon Kim, GSI for the class, for structuring this project.

Preface:

Read the two articles: Empire of the Quants by Edward Robinson in Market and Outsmarting the Market by Anthony Bianco in Business Week. Both articles talk about how Barclays Global Investors (BGI) uses the earnings quality signal developed by Richard Sloan, a former accounting professor at the University of Michigan. One of the earnings quality signal that the article mentions is the accrual metric that Sloan used in his 1996 paper in the Accounting Review (also attached)

Skim Richard Sloan’s 1996 Accounting Review paper. You will be using the accrual metric that Sloan uses in his paper (page 293) as one of the earnings quality signals. In addition, you will use another accrual metric based on the difference between income and cash flow from operations.

For this project, you will use the data provided in Excel format for 60 firms. For simplicity, all the firms selected have December 31 year ends.

PART I

Step 1:

In the worksheets FS – 2003 (Dataset) and FS – 2004 (Dataset), selected Balance Sheet and income Statement items are provided. The data is provided for all but 6 (10%) of the firms. Refer to the 10K statements for the relevant years for these 6 firms and fill in the data items. Make sure the data definitions are consistent across all the firms. To ensure consistency, you might want to check the data in the Excel file for a few of the other 54 firms (for which data is provided) with their 10K statements.

Step 2:

Calculate the (Working Capital) Accruals using the definition used in Sloan (1996 – page 293). Note that there are a few superfluous data items in the two dataset worksheets.

Definition of (Working Capital) Accrual

Accruals = (ΔCA – ΔCash) – (ΔCL – ΔSTD – ΔTP) – Dep

Step 3:

Calculate the three financial variables that will be used in the empirical analysis (see Sloan – page 294)

\[
\text{Earnings} = \frac{\text{Income from Continuing Operations}}{\text{Average Total Assets}},
\]

\[
\text{Accrual Component} = \frac{\text{Accruals}}{\text{Average Total Assets}}, \text{ and}
\]

\[
\text{Cash Flow Component} = \frac{\text{Income from Continuing Operations} - \text{Accruals}}{\text{Average Total Assets}}.
\]

○ Per Asset Earnings:

○ Per Asset Accruals:

○ Per Asset Cash Flows
Where,

Earnings in 2004: Operating Income after Depreciation in 2004

Average Total Assets: (Total Assets in 2004 + Total Assets in 2003) / 2

Step 4:

Calculate Abnormal Returns (Size-adjusted)

Refer to page 294 of Sloan (1996)

The measurement of future stock returns begins four months after the end of the fiscal year from which the financial statement data are gathered. Alford et al. (1994) report that, by this time, almost all firms’ financial statements are publicly available. Stock returns inclusive of dividends are obtained for each firm from the CRSP monthly returns file and annual buy-hold returns are computed for three future years.

Thus, the Dataset has stock returns beginning four months after the fiscal yearend (May '05 to April '06)

Refer to again to page 294:

The computation of abnormal returns requires adjustment for the normal or expected return. Two alternative adjustment procedures are employed in this study. First, size is a well-documented predictor of future returns, and prior research in this area typically employs a size adjustment (Ou and Penman 1989; Bernard and Thomas 1990). In this study, size-adjusted returns are computed by measuring the buy-hold return in excess of the buy-hold return on a value-weighted portfolio of firms having similar market values. The size portfolios are formed by CRSP and are based on size deciles of NYSE and AMEX firms. Membership in a particular portfolio is determined using the market value of equity at the beginning of the calendar year in which the return cumulation period begins.
You will only use the first adjustment using size and ignore the second adjustment involving Jensen alphas.

Refer to the Excel Worksheet Return (Dataset). Notice that the return data is provided for each firm from column D. Size-matched returns begins in Column Q.

**Step 4A:**

Calculate the Size-adjusted (Abnormal) Returns using the formula provided below:

Refer to the footnote to Table 6 on page 307:

*The size-adjusted returns are computed by taking the raw buy-hold return, inclusive of dividends and any liquidating distributions and subtracting the buy-hold return on a size matched, value-weighted portfolio of firms. The size portfolios are based on market-value of equity deciles of NYSE and AMEX firms. The decile rankings and decile returns are supplied by CRSP. The return cumulation period begins four months after the fiscal year-end of the year in which the level of operating accruals is measured."

\[
\Delta R_u = \prod_{t=0}^{T} [1 + R_u] - \prod_{t=0}^{T} [1 + R_{mw}]
\]

\( R_u \): Individual Stock Returns  
\( R_{mw} \): Size Matched Returns

**Where:**

**Individual Stock Return Computation:**

\( (1 + \text{May 2005 Return}) \times (1 + \text{June 2005 Return}) \times (1 + \text{July 2005 Return}) \times (1 + \text{August 2005 Return}) \times (1 + \text{September 2005 Return}) \times (1 + \text{October 2005 Return}) \times (1 + \text{November 2005 Return}) \times (1 + \text{December 2005 Return}) \times (1 + \text{January 2006 Return}) \times (1 + \text{February 2006 Return}) \times (1 + \text{March 2006 Return}) \times (1 + \text{April 2006 Return}) \)

**Size Matched Return Computation**

\( (1 + \text{May 2005 Size Matched Return}) \times (1 + \text{June 2005 Size Matched Return}) \times (1 + \text{July 2005 Size Matched Return}) \times (1 + \text{August 2005 Size Matched Return}) \times (1 + \text{September 2005 Size Matched Return}) \times (1 + \text{October 2005 Size Matched Return}) \times (1 + \text{November 2005 Size Matched Return}) \times (1 + \text{December 2005 Size Matched Return}) \times (1 + \text{January 2006 Size Matched Return}) \times (1 + \text{February 2006 Size Matched Return}) \times (1 + \text{March 2006 Size Matched Return}) \times (1 + \text{April 2006 Size Matched Return}) \)
Step 5:

Merge the appropriate columns in the two worksheets, Computation of Accruals and Excess Return Computation in the worksheet Final Results by company name.

FIRST DO STEPS 6A AND 7A (Sloan (1996) definition of Accrual), THEN DO STEPS 6B AND 7B (Alternative definition of Accrual using Cash and Earnings)

Step 6A:

Form Portfolio (Worksheet: Final Results)

- Sort companies in ascending order based on Per Asset Accruals
- Take 20 companies with lowest accruals and name them “L” group under “Portfolio” column
- Take 20 companies with highest accruals and name them “H” group under “Portfolio” column
- Take the rest 20 companies and name them “M” group under “Portfolio” column
- Now you have a portfolio that consists of three groups (H, M and L)

Step 7A

Examine Relation between Accruals and Stock Return (Worksheet: Final Results)

- Take the average of Per Asset Accruals for each portfolio
- Take the average of Cumulative Excess Returns for each portfolio
- Compute “Hedge Return” by subtracting the Cumulative Excess Return of “H” portfolio from the Cumulative Excess Return of “L” portfolio
Step 6B

- Calculate alternative definition of Accrual

\[ \text{Per Asset Accrual} = \text{Per Asset Earnings} - \text{Per Asset Cash Flows} \]

- Sort companies in ascending order based on Per Asset Accruals

- Take 20 companies with lowest accruals and name them “L” group under “Portfolio” column

- Take 20 companies with highest accruals and name them “H” group under “Portfolio” column

- Take the rest 20 companies and name them “M” group under “Portfolio” column

- Now you have a portfolio that consists of three groups (H, M and L)

Step 7B

Examine Relation between Accruals and Stock Return (Worksheet: Final Results)

- Take the average of Per Asset Accruals for each portfolio

- Take the average of Cumulative Excess Returns for each portfolio

- Compute “Hedge Return” by subtracting the Cumulative Excess Return of “H” portfolio from the Cumulative Excess Return of “L” portfolio

PART II:

a) What are your conclusions from this analysis? What is your explanation for the results? Be detailed.

b) Why has this anomaly persisted – Sloan published his paper in 1996 and your project was based on 2004-05 data.
PART III:

In this study and in Sloan's paper, we use earnings quality defined by accounting accruals as a signal to pick stocks. Can your group think of another signal to pick stocks? Why do you think it would be a valid signal? How would you implement the project – provide broad details?

PART IV (Optional – Successful completion of this part will result in an A for the course)

Implement the study using the signal you suggested in Part IV.
Interactive Case-based Method

- The interactive case method utilizes communication between the instructor and students as well as among students to facilitate learning.

- Which of the four Accounting courses are best taught using the case-method? Why?

When to use the interactive case-based method?

- When the material requires students to analyze, synthesize, evaluate and apply.

- When students have points of view and relevant arguments to support them.

- When the learning objectives of the course includes changing attitudes.
Interactive Case-based Method (contd.)

Case-based teaching comes in many forms:

<table>
<thead>
<tr>
<th>Instructor-centered</th>
<th>Student-centered</th>
</tr>
</thead>
<tbody>
<tr>
<td>The degree of instructor input vs. student contribution</td>
<td></td>
</tr>
<tr>
<td>The extent of teacher-student vs. student-student interchange</td>
<td></td>
</tr>
<tr>
<td>The extent of instructor direction vs. student setting the agenda</td>
<td></td>
</tr>
<tr>
<td>The extent to which instructor provides closure vs. students figuring it out themselves</td>
<td></td>
</tr>
</tbody>
</table>

What are the positive aspects of the case method?

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What are the positive aspects of the case method?

- Promotes active student participation/involvement
- Develops skills in analytical thinking and reflective judgment
- Helps link theory and practice
- Helps integrate multiple disciplines
- Helps students deal with ambiguity
- Improves students' ability to question assumptions, listen to arguments, and respond accordingly
- Helps incorporate multiple points of view
- And, many more

What are the negative aspects of the case method?

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What are the negative aspects of the case method?

- It is harder than delivering a lecture
- Greater preparation required by instructor and students
- Challenges of picking the right case – too simple or too complex
- Affected by less than full preparation and participation by students
- Affected by differences in knowledge and experience
- Affected by cultural differences & language issues
- Some students uncomfortable with adversarial style of case-analysis

Use of Cases at Harvard vs. Haas

At Harvard, during a 2-year program, students typically have studied more than a thousand cases
Purpose of Case-analysis at Harvard:
  - Ingrain certain habits of thought
  - Learn ways of breaking down problem situations
  - Develop an ability - to reason analytically
    - to constructively draw conclusions
    - to develop plan of action
Use of Cases at Harvard vs. Haas

At Haas, even in a typically case-study course, I do about 5-6 cases a semester.
Are my goals in choosing and analyzing cases different from those at Harvard?

Use of Cases at Harvard vs. Haas

- Applying principles/concepts to real world applications. That is – Focus more on Learning by Application rather than Learning by Discovery and Practice
- Show alternative approaches to comparable situations
- Show application of case conclusions to other organizations/settings
How to make cases more effective? (Partial List)

- Use Shorter cases or shorten the case
- Guide discussion in a particular direction by a series of prepared questions – Example - Siemens EMW case
- Use cases/projects with actual/public information – Example – Wipro Project
- Pre-assign readings and course notes to explain technical content necessary for the case
- Show application of concepts learnt to case situation
- Assign significant weight to class participation
- When lost - What do you think? Or, - Do you agree?

Experiential Learning Simulation/Role Playing Method

- In experiential learning, the teaching and learning takes place in simulations of natural settings that contain enough illusion of reality to induce real world-like responses by those participating in the exercise.
- So, they provide more realistic, constantly evolving and complex decision-making scenarios, a sense of urgency and excitement as students compete with class mates, and feedback that is more “real” and objective
Managerial Accounting – Siemens Electric Motor Works

Case:

Siemens Electric Motor Works found itself facing an increasingly competitive environment and so made a decision to move from mass production of standard motors to the production of small lots of custom motors. In doing so, they found their old cost system led them to poor decision making. By switching to a new cost system, more accurate product costs were computed, facilitating better pricing of products.

Prepared list of questions:

a) Describe the old cost system at Siemens?
   • How many overhead rates did Siemens calculate?
   • How did it calculate its overhead rates?
   • Etc.

b) What was Siemens’ old strategy? Why was it able to survive?

c) Was the old cost system adequate under Siemens’ old strategy? Why?

d) What was Siemens’ new strategy? Why did it have to move to a new strategy?

e) Was the old costs system adequate under Siemens’ new strategy?

f) Calculate the cost of the order under i) the old cost system and ii) the new cost system? Which costs are more accurate? Why?

g) Punch Line - What insights do you gain about how costs behave at Siemens by comparing the costs under the old and new cost system?

h) Punch Line – What would have happened if Siemens had adopted the new strategy but stuck to the old cost system?

i) The case describes the competitive conditions facing Siemens in the 1970’s. Give examples of other firms or industries that are currently facing similar competitive conditions? What insights from the Siemens case apply to these situations?
Experiential Learning (say, Simulations) vs. Case-method?

- Simulations require multiple decisions and analysis on the same company. Students craft their strategy, implement it, receive feedback on how well it works, and then go to the next iteration.

- In Cases, students offer a recommendation and then receive feedback from the instructor/students about the appropriateness of the recommendation.

When to use the experiential learning methods?

Experiential learning can set up as either:
- single-concept experiential exercises

- Simulations that deal with the entire organization, provide a number of decision variables in marketing, production and finance, and thus require the strategic integration of several subunits for organizational performance.
### When to use the experiential learning methods?

- To develop flexible, creative, rational problem-solving & decision-making skills (Simulations)
- To teach students interpersonal skills (Role-playing)
- To create environments in which learning and behavioral changes can occur (say, for an ethics course)
- To provide an experience with a complex system where managerial behavior can be observed (say, for a Game Theory or a Managerial Accounting course)
- Others?

### Positive/Negative aspect of the experiential learning format?

- **Positives**
  More real, more believable, more complex, more comprehensive, more engaged, more objective, more emotional arousal, more active learning, more fun – than cases

- **Negatives**
  More work, more sweat, more risk, more disasters, more stress – than cases
Rotch Paper is a vertically integrated paper manufacturing company with several profit centers. The case requires students to determine the optimal transfer price.

The case has been converted into a role-playing exercise to highlight the behavioral implications of asymmetric information and incentive contracts with kinks.

\[ \text{TP = Transfer Price} \]
\[ \text{SP = Sale Price} \]
\[ \text{IC = Incremental Cost} \]
How to make experiential learning more effective?

- Choose the right game/simulation/role-playing situation, and

**PRAY!**