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# "Flipped Classroom" Information Literacy in Business Management Courses--What Have We Learned?

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# 2015

# BRONX edTech SHOWCASE

Hostos Community College

May 8, 2015



# "Flipped Classroom" Information Literacy in Business Management Courses --What Have We Learned?

A Library - Business Department  
Collaboration at Lehman College

Prof. Madeline Cohen  
Prof. Deborah Sanders



# Who Are We?

- ▶ Madeline Cohen
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- ▶ Deborah Sanders
  - ▶ Lecturer, Economics and Business
  - ▶ Lehman College
  - ▶ [Deborah.sanders@lehman.cuny.edu](mailto:Deborah.sanders@lehman.cuny.edu)

# Agenda

## ▶ Flipped Classroom

- Brief background on our collaboration
- Key aspects of Flipped
- What we've done over three semesters 2014-15
- What we've learned - Adjustments to Flipped
- What you can do
- Questions ?

# Library - Business Collaboration

- Cohen taught flipped one-shot Information Literacy classes for Sanders' Business Management courses
- Cohen working on multi-semester research on flipped classroom for Information Literacy in various disciplines with library faculty colleagues

# What is the Flipped Classroom?

- ▶ Flipped classroom involves 3 essential parts:
  - ▶ 1) Pre-class work
    - ▶ Bloom's taxonomy: Students do the lower levels of cognitive work (gaining knowledge and comprehension) outside of class
  - ▶ 2) In-class: students practice applying their knowledge—feedback and support from instructor and peers—social learning environment
    - ▶ Bloom's Taxonomy: Focus on the higher forms of cognitive work (application, analysis, synthesis, and/or evaluation) in class
  - ▶ 3) After class: students continue to test their learning and extend their learning (homework and practice)

# Why the Flipped Classroom ?

- Business research lends itself to active learning
- Facilitates a vested interest on the part of the student
- Pre-class work prepares students to pose informed questions in class which boosts confidence
- Deepens understanding of concepts through active learning
- Strengthens communications between instructor and student
- Use of video demonstrations coincides with social media habits and current trends of younger people

# Principles of Management Course

## Company Research Project

- ▶ Course requires groups to learn about management through researching a specific company and the industry in which the company operates
- ▶ Select Specific Learning objectives
  - ▶ Gain proficiency in using library databases to collect relevant journal articles
  - ▶ Profile the target company and the industry in terms of company revenue, market share, executive management industry revenue, and competitors' revenue
  - ▶ Characterize the target company's business environment and identify any ethical dilemmas being faced

# Methodology

- Experimental (Flipped) and control group (lecture/demo)
- Pre-test to assess student knowledge of the subject matter to be taught (both groups)
- Video and worksheet needed to complete assignment related to subject matter. (Experimental group)
- Post-test to assess the effectiveness of the flip-classroom approach (both groups)

# Flipped Lesson Planning

## ➤ PLAN & PREPARE LESSON

Step 1: Define Content Scope, Learning Objectives, & Instructional Strategies

The success of your flipped class depends on the alignment of what you want your students to accomplish before, during, and after the class.

# Flipped - Learning Objectives

- Rank all the skills / concepts you want students to learn, from simple to most complex
- Select least complex items for the homework assignment
- Select most complex for in-class activities

# Homework Planning

- Which skills / concepts to present in short (20-30 min.) assignment ?
  - Are skills/concepts “building blocks” needed to advance to more complex work?
  - Do skills/concepts adapt well to homework assignment ? (independent learning)
  - Is there an incentive for students to do homework ?

# Business Flipped - Homework Assignment Example

- Decide on *type* of activity and *media* for delivery
  - Watch video and answer series of questions on worksheet—Submit to BlackBoard for grade for completion
- Learning Objectives for Homework (Business Management):
  - Students will be able to determine if a company is public or private
  - Students will be able to find data on a company, e.g. executives, industry code, financials, products, competitors, etc.

# Business Flipped - Homework Assignment

- ▶ Format: Video tutorial (Camtasia) and worksheet:
- <http://libguides.lehman.edu/BBA204assignment>
- [https://youtu.be/7G9aiv\\_vdww](https://youtu.be/7G9aiv_vdww)

**NAME OF STUDENT**

**Assignment:** Watch the video tutorial (or PPT) on Lexis-Nexis Academic, Company Dossier.

From the Research Guide <http://libguides.lehman.edu/BBA204assignment>,  
open Lexis-Nexis Academic database and go to Dossier (Company...)

Search for your company.

1. Enter the Company Name as listed in this database:

2. Enter the Company Type:

Click on the link to your Company Name and look at the Overview of the company.

Enter the following information:

3. Ticker

4. Name of CEO

5. Primary SIC Code

6. Name of one Brand

7. Name of one Competitor

8. Total Revenue (2012)

9. Date of most recent 10-K report in Lexis-Nexis Academic (Dossier)

10. Most recent *New York Times* article on the company:

Homework Worksheet  
Example

Word.doc to complete  
and upload to  
BlackBoard

# Business Flipped - In-Class Activities - 2 Learning Objectives

- Students will be able to retrieve journal articles on companies and business topics from *Business Source Complete*
- Students will be able to locate and interpret financial data on companies and industries, e.g. revenue and market share

# In-Class Activities for Project Groups

- ▶ Format for in-class activities in spring 2015:
  - ▶ 2 Activities to achieve learning objectives
  - ▶ Each activity focused on searching one database
  - ▶ Worksheets for each database searching activity
  - ▶ Cohen introduced each activity with explanation
- ▶ Homework for follow-up class:
  - ▶ Watch videos on Wall Street Journal and 10K Reports databases on Research Guide <http://libguides.lehman.edu/bustutorials>
  - ▶ Complete Worksheets

## Activity Worksheet Example

1. Click on link to the *Business Insights Essentials* database
2. Enter the name of your Company, and select the company's proper name from the list of choices offered.
  - a. Find the TOTAL REVENUE of the company
  - b. Enter Total Revenue for **past 2 years**:

1 <sup>st</sup> Year	2 <sup>nd</sup> Year

- c. Enter the names of two **COMPETITORS**:


- d. Enter **ANNUAL REVENUE** of the **PRIMARY INDUSTRY** for your company

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See More Worksheets on: <http://libguides.lehman.edu/flipped>

# Follow-Up Class - Lessons Learned

- ▶ Follow-up session was where real learning occurred
- ▶ Interactions between group members were collaborative and supportive
- ▶ Students were engaged and interested in using *Research Guides* and Videos for further research
- ▶ Support of faculty (Cohen and Sanders) encouraged students to overcome barriers to starting research project (feeling lost; not knowing where to get help)

# Follow-Up Resources

- Research Guide with Video Tutorials made available 24/7
  - <http://libguides.lehman.edu/BBA204>

# Assessment - Pre- and Post-Tests

- Both sections (flipped and lecture) were asked to take the *same* test at the end of the class
- 10 Content questions (same as pre-test)
- 3 Questions were added for student reactions:
  1. Did you enjoy today's class?
  2. [For Flipped Section] If you completed the pre-class assignment, how helpful was it?
  3. Comments

# Changes to Flipped - Spring 2015

- ▶ Incentivized pre-assignment - Posted in BlackBoard; Students are graded for completion
- ▶ Reduced in-class activities from 3 to 2 most difficult databases
- ▶ Homework for follow-up class: Videos and worksheets for 2 databases

# Lessons Learned

- ▶ Flipped can be designed for individual lessons - not just for entire course
- ▶ Flipped can use simple technology, or no technology
- ▶ Instruction (lecture) can be integrated into Flipped
- ▶ Homework/Pre-class Assignments
  - ▶ Must be crafted with clear objective, purpose and method
  - ▶ Less is more: Keep it short and focused on fundamental concepts
  - ▶ Use BlackBoard to track and assess homework assignments before class
  - ▶ Assignments with Online Quizzes that are graded in BlackBoard are motivational tools; leads to more meaningful discussion in class

# Lessons Learned - 2

- ▶ In-class Activities
  - ▶ Short instruction preceding hands-on activities
  - ▶ Give students time to absorb instructions
  - ▶ Answer questions as students do activities
  - ▶ Provide feedback and individualized instruction
- ▶ Follow-up class important to extend and solidify learning
- ▶ Future: Assessment of student papers or another post-test later in semester

# What Students Are Saying About Flipped

- ▶ Surveys of students in Deborah Sanders' classes - spring 2015  
<http://libguides.lehman.edu/aecontent.php?pid=589170&sid=4863749>
- ▶ 70% of the students surveyed rated the flipped classroom approach to learning 5 or better on a scale of 1 -7
- ▶ Student answers to Survey question: How can we improve access to research materials to help you complete assignments?
  - ▶ “Working in groups helped me better understand databases”
  - ▶ “You should have students present items they found useful and how it can be used in the group”
  - ▶ “Librarian can interact with students more to ensure they are completing assignment accurately”

# Faculty Comments on Flipped

- ▶ Prof. Sanders' Conclusions:
  - ▶ “I can say with great confidence that the overall quality of the reports have improved dramatically. As a result, I have been able to hold students to a higher standard.”
  - ▶ ...I had to make substantial changes to the syllabus to allow for time in the library with Madeline. For example, one of the quizzes that is usually held in class was moved to online...
  - ▶ ...I strongly recommend the flipped classroom for complex assignments and/or topics.”

# Technology

- ▶ Video - Fits students mode of learning and communication
  - ▶ [Ed.Ted.com](http://Ed.Ted.com) create a customized lesson around a video taken from the web
  - ▶ [Screen-Cast-O-Matic](#) Video recording that is easy and low-cost
  - ▶ [Camtasia](#) Full-featured video recording software
  - ▶ [Voicethread](#) Upload, share and discuss documents, presentations, images, audio files and videos.
- 
- ▶ Assessment
  - ▶ [Poll Everywhere](#) Free resource; Engage with your audience in real time
  - ▶ [Clickers](#) Response system for real-time assessment

# Technology to Support Flipped

[ See Resources/Technology  
<http://libguides.lehman.edu/flipped> ]

- ▶ Learning Management System (software)
  - ▶ BlackBoard: Assignments with Quiz
- ▶ LMS Free software:
  - ▶ Edmodo
  - ▶ Google classroom
  - ▶ LiveBinder
  - ▶ Schoology
  - ▶ Moodle

# Technology - Mobile

- ▶ Collaboration Apps
  - ▶ [BlackBoardLearn Mobile](#)
  - ▶ [Google Hangouts](#): video conferencing capability
  - ▶ [Google Collaboration Tools](#): Google Drive, Docs, Presenter
- ▶ iPad Apps: free apps; capture and video record screen output; voice-over audio
  - ▶ [8 Outstanding iPad Apps to Create Tutorials, etc.](#)
  - ▶ [ShowMe](#)
  - ▶ [Educreations](#)
  - ▶ [Explain Everything](#)

# Questions ?

- ▶ Contact Us
- ▶ [Madeline.cohen@lehman.cuny.edu](mailto:Madeline.cohen@lehman.cuny.edu)
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