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Flipping the Lehman College Classroom A Library – Business Department Collaboration

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Flipping the Lehman College Classroom

A Library - Business Department Collaboration

Prof. Madeline Cohen
Prof. Deborah Sanders
Prof. Jennifer Poggiali

HETS Special Event: Best Practices in Teaching with Technology
June 19, 2014

Who Are We?

- ▶ Madeline Cohen
 - ▶ Assistant Professor and Head of Reference
 - ▶ Leonard Lief Library, Lehman College

- ▶ Deborah Sanders
 - ▶ Lecturer, Economics and Business
 - ▶ Lehman College

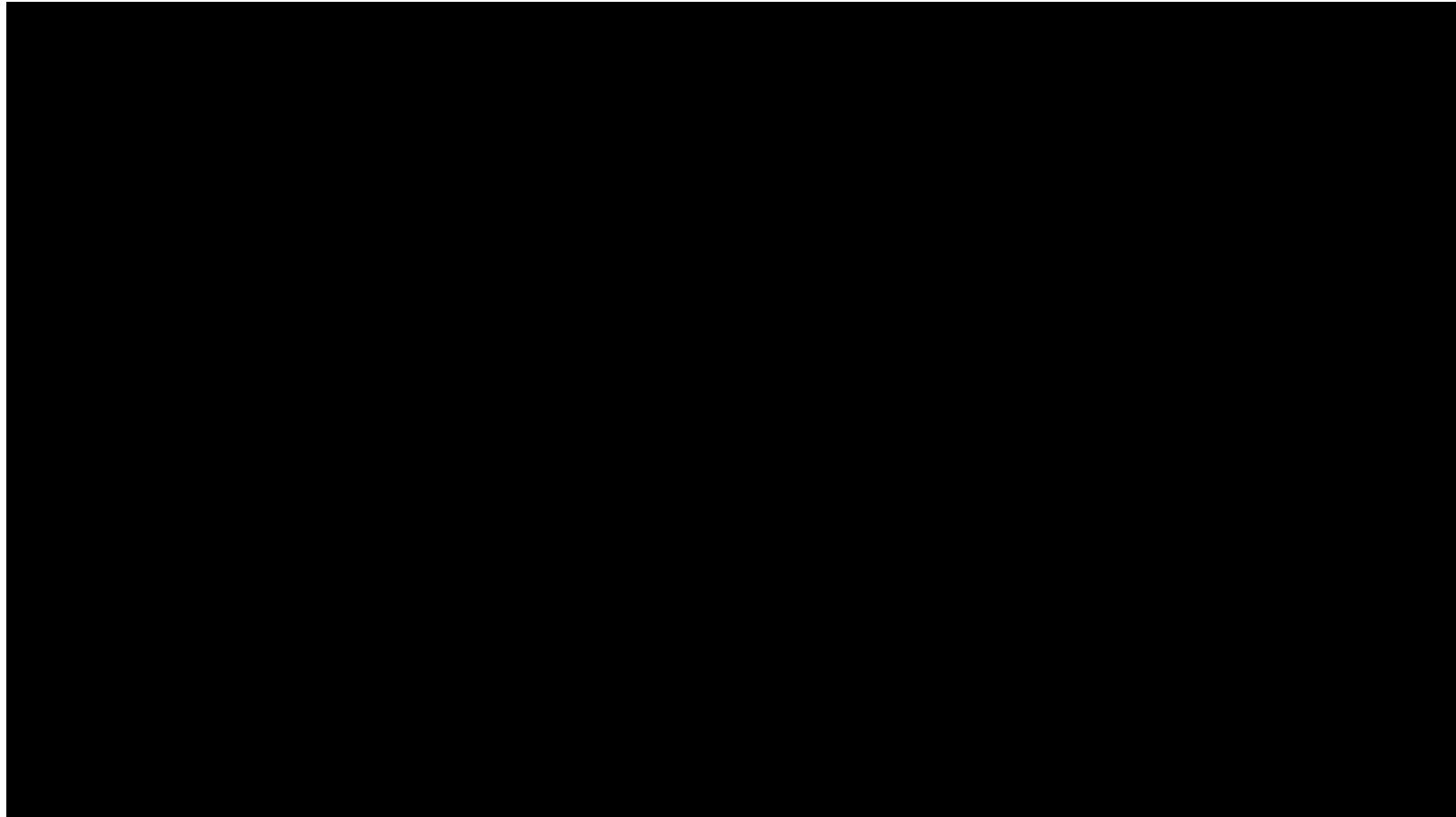
- ▶ Jennifer Poggiali
 - ▶ Assistant Professor and Instructional Technologies Librarian
 - ▶ Leonard Lief Library, Lehman College

Agenda

▶ Flipped Classroom

- What it is
- How it's done
- What we've done
- What we've learned
- What you can do
- Questions ?

What is a Flipped Classroom ? (in 60 seconds)



What is a Flipped Classroom?

- ▶ Technology-enabled homework

- ▶ Videos or recorded lectures
- ▶ Online tutorials
- ▶ Discussion boards, wikis, blogs
- ▶ Quizzes

- ▶ Active Learning in class



“...a process whereby students engage in activities, such as reading, writing, discussion, or problem solving that promote analysis, synthesis, and evaluation of class content.”

- ▶ University of Michigan, Center for Research on Learning and Teaching <http://www.crlt.umich.edu/tstrategies/tsal>

Trends in Higher Education

- 2007 - First documented example of flipped classroom in Woodland Park H.S. (Colorado) chemistry class (Sams and Bergmann).
- Today, many universities and colleges have embraced this approach, enabling students to spend valuable class-time immersed in hands-on activities...
- Source: NMC Horizon Report: 2014 Higher Education Edition. Jointly conducted by the New Media Consortium (NMC) and the EDUCAUSE Learning Initiative (ELI).

Library - Business Collaboration

- Prior relationship between Library (Cohen) and Business (Sanders)
- Cohen taught 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

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)

Outcomes

- Students in the flipped classroom showed better performance (95 avg versus 64 avg) in finding and submitting journal articles
- Students in the flipped classroom showed better performance (79 avg versus 66 avg) on Environmental/Ethical analysis research
- Students in flipped class reported using the library resources in other classes even when it was not required
- Experimental group exhibited greater enthusiasm about their assignments
- Experimental group reported watching the video repeatedly as a way of drilling in the steps required to find relevant articles

Why the Flipped Classroom ?

- 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
- Business research lends itself to active learning

Problem Facing One-Shot Information Literacy Session

- Large amount of material
- Short amount of class time
- Lecture / Demo model is passive
- Retention can be low
- How to make classes interesting and productive ?
- How to engage students in learning skills they can build on and use ?

Flipped Classroom Basics

- Learning Objectives
- Homework Assignment
- In-Class Activities
- Assessment

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 ?

Homework Design

- Decide on *type* of activity and *media* for delivery
 - High or Low-Tech (print or Google Form)
 - Video (your own or someone else's)
 - Podcast
 - PowerPoint (or Slide deck) Tutorial
 - Reading / Writing
 - Worksheet with Guided Steps (Q&A; Annotations)
 - Online Collaboration (BlackBoard, Google Docs)

In-Class Activities

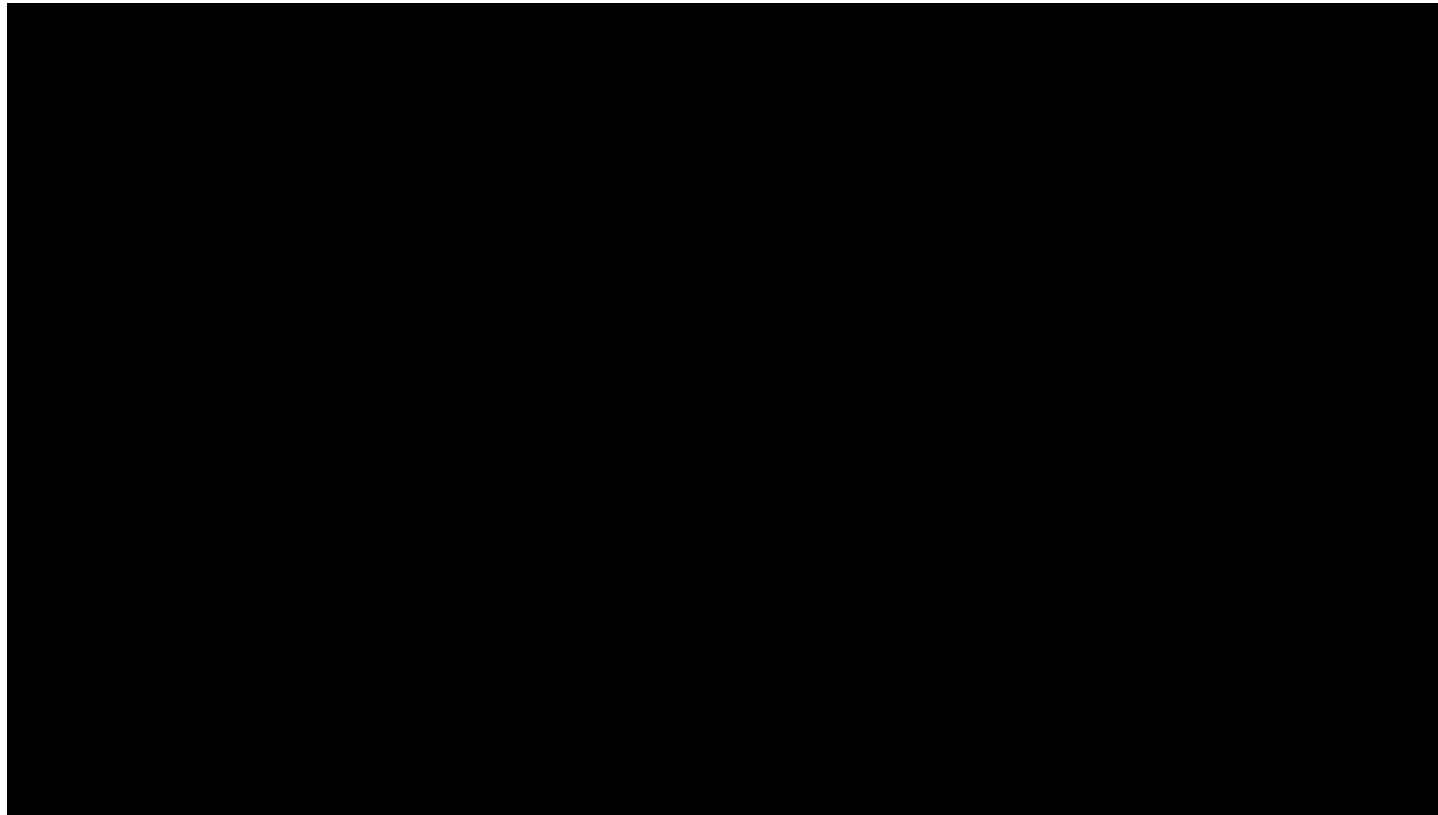
- Pair skills/concepts with an active learning strategy:
 - Task Worksheet with Questions
 - Group assignment / presentation
 - Group discussion
 - Brainstorming
 - Role-Playing
 - Debates, Games and more

Business Flipped - Homework Assignment Example

- Learning Objectives for Homework:
 - 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>



Assignment Instructions

- ▶ The following assignment is to be completed before coming to class on Thursday Feb. 27th at 2 pm:
- ▶ 1. Watch the Video Tutorial below on Lexis-Nexis Company Dossier (approx. 7.5 minutes)
- ▶ If you have technical difficulties watching the video, you can review the PowerPoint presentation below.
- ▶ 2. Open the link to Lexis-Nexis Academic (provided on this page).
- ▶ Sign in with your Lehman Login (instructions are in this guide under "Remote Access" tab; please make sure your Lehman Login is working!)
- ▶ 3. Print out the Worksheet below if you didn't get a copy in class.
- ▶ 4. Answer the questions on the Worksheet and bring this to class on Feb. 27th.
- ▶ If you have any questions or problems with the video, please e-mail Madeline Cohen

Activities for Project Groups

- ▶ 3 Activities to achieve learning objectives
- ▶ Each activity focused on searching one database
- ▶ Worksheets for each database searching activity
- ▶ Cohen introduced each activity with explanation

Assignment Worksheet

- ▶ 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 Company Dossier
- ▶ 10. Title and date of most recent *New York Times* article on your company

Business Flipped - In-Class Activities - 3 Learning Objectives

- Students will be able to retrieve journal articles on companies and business topics from *Business Source Complete*
- Students will be able to find financial data on companies and industries, e.g. revenue and market share
- Students will be able to locate a company 10-K report

Example - Activity Worksheet

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 st Year	2 nd Year

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

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

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Post - Test

- 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

Follow-Up Resources and Session

- Research Guide with Video Tutorials made available 24/7
 - <http://libguides.lehman.edu/BBA204>
- Each group came to library for follow-up session with Cohen and Sanders
- Hands-on searching of databases for project
- Students expressed opinion that more library follow-up time would be beneficial (another session)
- They like active learning !

Videos - Number of “Views”

- ▶ Homework assignment video on *Lexis-Nexis Company Dossier*: 53 times
- ▶ *Lexis-Nexis Company Dossier* on Research Guide for Course: 30
- ▶ *Edgar* video on Research Guide for Course: 16
- ▶ *Business Insights* video on Research Guide for Course: 22
- ▶ *Business Source Complete* video on Research Guide for Course: 15
- ▶ *Wall Street Journal on ProQuest* video on Research Guide for Course: 18

Student Attitudes

- Flipped Class: 19 students
 - When asked “Did you enjoy today’s library session?”
 - 17 checked “liked” or “Liked a lot”
 - 2 checked “Neutral”
 - When asked if the homework was helpful
 - 14 checked “Very Helpful”
 - 4 checked “Helpful”
 - 1 checked “Neutral”
- Control Group: 11 students
 - When asked “Did you enjoy today’s library session?”
 - 10 checked “Liked” or “liked a lot”
 - 1 checked “Neutral”

Student Comments

- ▶ Flipped Class: Out of 19 students, 8 wrote comments
 - ▶ Sample comments:
 - ▶ “This will help me and my group out a lot.”
 - ▶ “We need to know [on] how to use the library database because it can be [very] helpful than using search engine.”
 - ▶ “This was a great library session. I found this very helpful and supportive towards the project. I feel more confident in my ability to find research for the project.”

Lessons Learned

- Use the flipped classroom approach for other complex concepts to be taught. e.g. BCG matrix
- Video format for learning goes hand-in-hand with young peoples' learning habits

Next Steps - Repeat Research in Fall 2014

- More formative assessment
 - *Guide on the Side* (<http://code.library.arizona.edu>) for online tutorials
 - Video Annotating software (*Vialogues* <https://vialogues.com>)
 - Clickers or Online Quizzes (*Poll Everywhere* <http://www.polleverywhere.com>) for Quick Assessment

▶ Contact Us

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▶ jennifer.poggiali@lehman.cuny.edu

▶ Research Guide

▶ <http://libguides.lehman.edu/flipped>

Think - Pair - Share

- ▶ How might you or someone at your institution begin flipping the classroom? Is there a particular course or lesson that might be a good candidate for a flipped approach?
- ▶ What might some challenges be to flipping the classroom at your institution?