Flipping the Lecture

A 5-minute Teaching Model

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Flipping the Lecture

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Course Background

- Blended/Hybrid sections of 2 introductory business classes
- Analytics I – about half IT and half Introductory statistics
- Analytics II – traditional introductory statistics
- Both are required in the business core
- Part of 3 course sequence

Course Background

Time	Class	Instructor
	T/R	
	Class	Instructor
8	INFO 1010 - 2	Paige - Online?
8	INFO 2020 -3	4
8	INFO 1020 - 6	3
8	INFO 1020 - 7	3
8		
10	STAT 2800-3	Scott ? 2 hybrid?
10	STAT 2800 - 4	Scott ? 2 hybrid?
10	INFO 1020 - 8	Andrew
10	INFO 2020-4	Stacy
10		
12		
12	STAT 2800 - 4	1
12	INFO 1020 - 9	Scott Hybrid
12	INFO 1020 - 10	Scott these need 2 friday test days during quarter
12	INFO 2020 -5	Stacy
14	INFO 1020 - 11	Andrew
14	STAT 2800-5	1
14	INFO 1010-3	Dick
14		

- Offered in multiple formats
- Online
- Hybrid
- Face to Face
- About 500 first-year students per year across many ~ 20 sections

Course Setup

- Hybrid setup – lectures are online
- Homework, reading, and quizzes are done before class meeting (know what they know before class)
- Flipped classroom – class time used for deeper exploration/group work
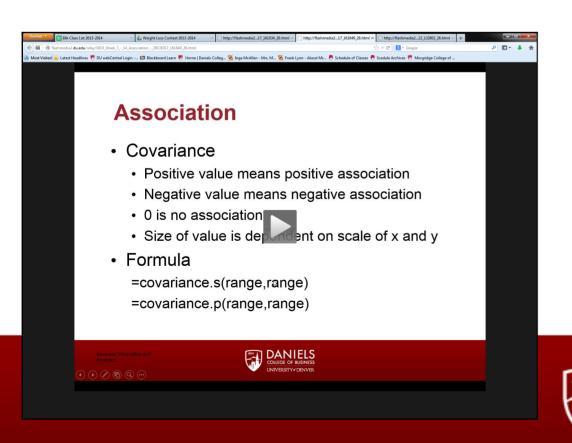- No lecture in class (Ok, maybe just a bit)
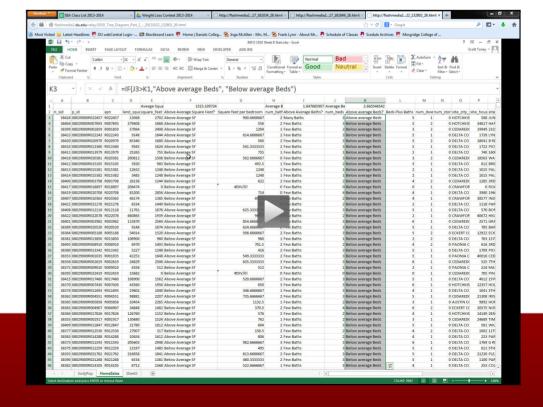- Lots of Pluses

Online Lectures

- Around 5 minutes each
- PowerPoint, Excel, and Online Links
- Screencasts (Think Kahn Academy)
- 3 to 15 "Lectures" per week

Online Lecture Benefits

- Hybrid setup – Benefits
  - Content delivery at student pace
  - Fewer "deer in headlights"
  - Fewer "facebook faces"
  - Students are responsible for learning (they may not like this)
  - Class time is used better

Why 5 minutes?

1010 Week 7 - 1 Intro	1:52
1010 Week 7 - 2 Mean Median Mod	4:56
1010 Week 7 - 3 Excel Mean Media	6:11
1010 Week 7 - 4 Percentiles and Qu	5:09
1010 Week 7 - 5 Dispersion	6:14
1010 Week 7 - 6 Excel Dispersion	5:45
1010 Week 7 - 7 COV and Shape	6:04
1010 Week 7 - 8 Excel Real Estate D	5:52
1010 Week 7 - 9 Excel Real Estate D	6:42
1010 Week 7 - 10 Data Analysis Too	2:56
1010 Week 7 - 11 Z scores emperic;	5:09
1010 Week 7 - 12 Chebychev's the(	3:04
1010 Week 7 - 13 Excel Standardize	5:48
1010 Week 7 - 14 Association	5:09
1010 Week 7 - 15 Excel Association	5:45

- Easily digestible by student?
- Reduced fear of re-recording
- But what if there is no break in my material?

Technical Details

- Blackboard is my LMS
- Camtasia Relay is my main recording software (no editing)
- Camtasia Studio is my new technology
- Hosted internally, could be YouTube

Hybrid Development

- This details my process for porting a course to hybrid
- Learning objectives, lectures, homework, and tests have been used by me in earlier quarters
- Focus on what is better in each environment

Hybrid Development

- Re-organize the 2 weekly lectures
- Almost all content moves to online lecture for the week (PowerPoint)
- Shorter in class PowerPoint created to act as guide for in class activities
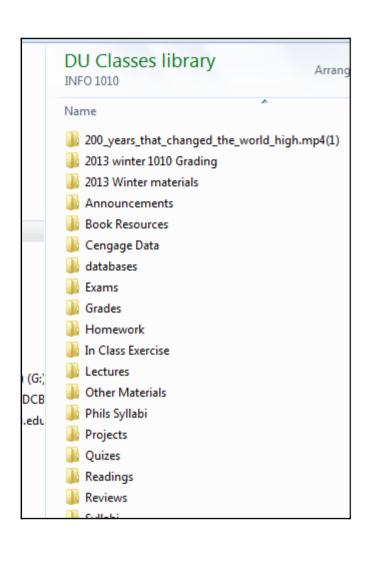
Hybrid Development

- Think hard about what goes online and what to do in class
- Information Delivery goes online
- Skill practice goes online
- Easy examples go online
- Designed for students to work at own pace
- What traditionally happens at home?

Hybrid Development

- Tougher exercises go in class
- Opportunities for group work go in class
- Provide challenges that lead to coaching
- Hope for chances for students to get stuck and receive immediate feedback
- Think teachable moment

Hybrid Development

DU Classes library
INFO 1010

Arrang

Name

200_years_that_changed_the_world_high.mp4(1)
2013 winter 1010 Grading
2013 Winter materials
Announcements
Book Resources
Cengage Data
databases
Exams
Grades
Homework
In Class Exercise
Lectures
Other Materials
Phils Syllabi
Projects
Quizes
Readings
Reviews

(G:)
DCB
.edu

- Along with PowerPoints, other relevant files are prepared
  - Spreadsheets
  - Lists of web links
  - Assignment documents

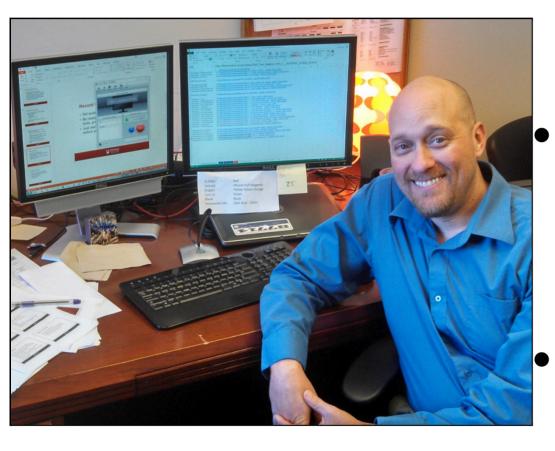- All of these things are done at home, to prep for class

Hybrid Development Activity

- Work through handout
  - Envision one week of a class you are familiar with
  - Identify what parts can be moved online (think passive information delivery first)
  - Identify what parts can be expanded in class (think coaching opportunities)
- Work for 10 minutes with a partner
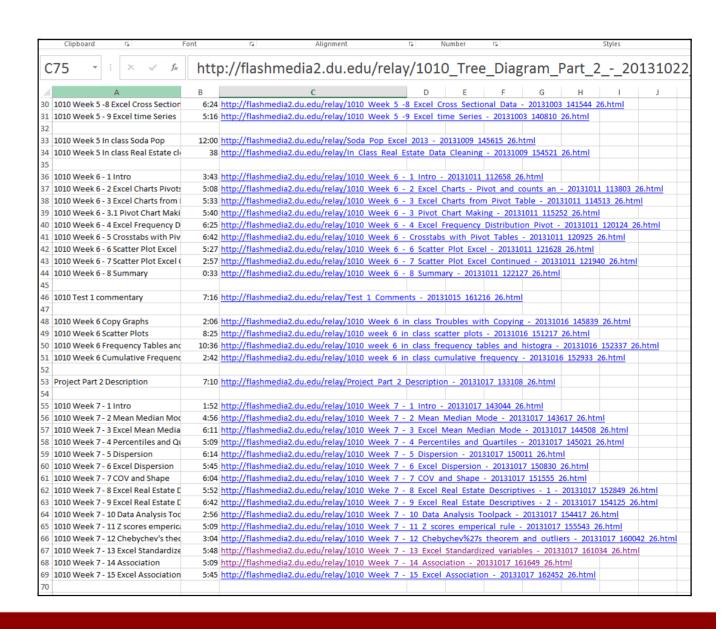- Share with each other what can be moved

Record Videos

- Set aside some quite time
- Be ready with supporting files, examples, texts, prompts
- Just start (it is less painful than it seems before you start)

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Organize Videos

- I keep the videos in a spreadsheet

- Titles are numbered and informative
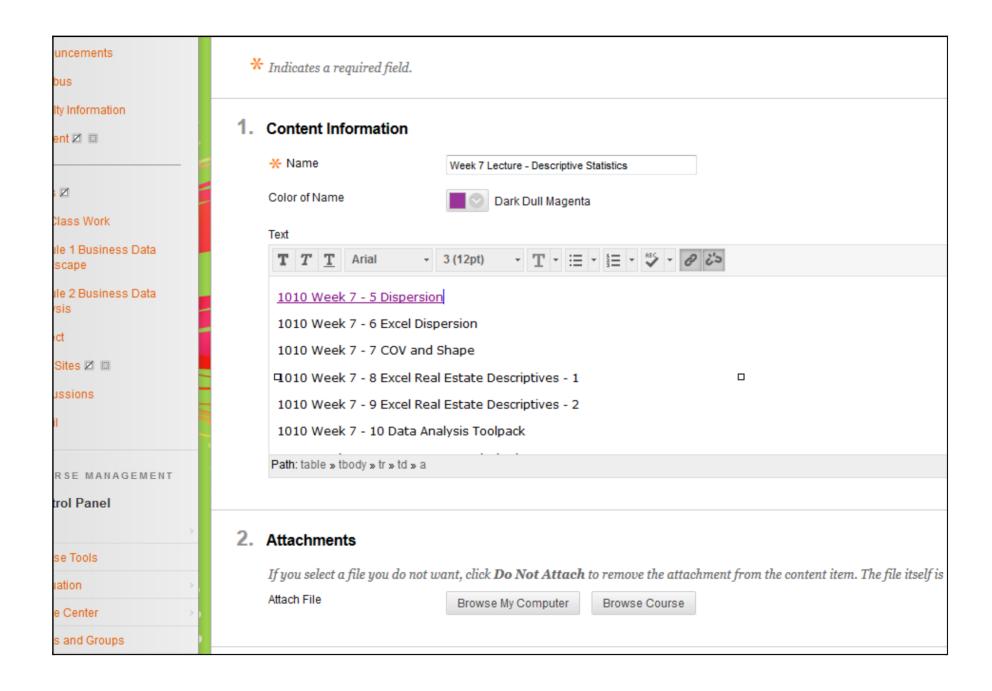
- I track video lengths

- Capture the URL

Post Online Content to LMS

- I attach the links behind the video titles
- They open in a browser
- Students can watch them all at once or a few at a time
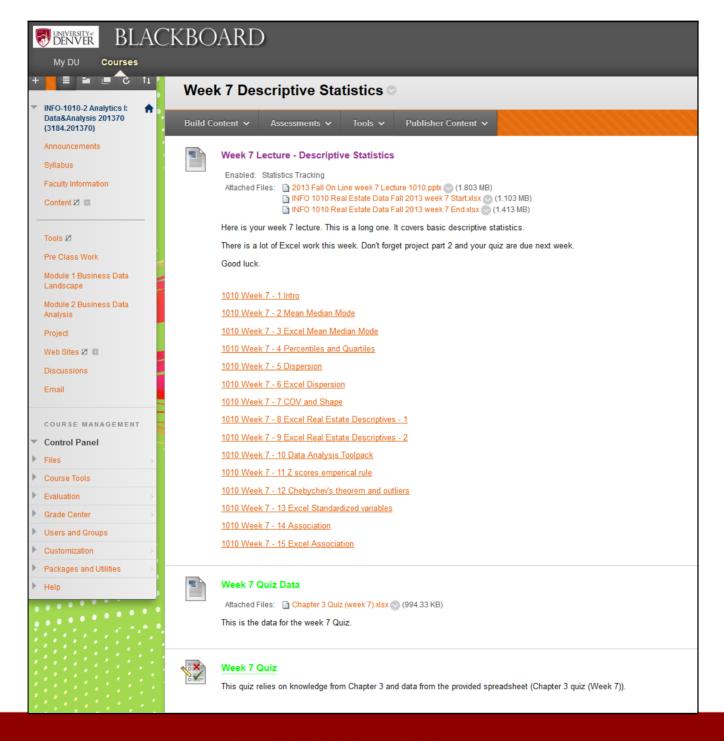- Resources are posted near videos (confusion leads to more work for you!)
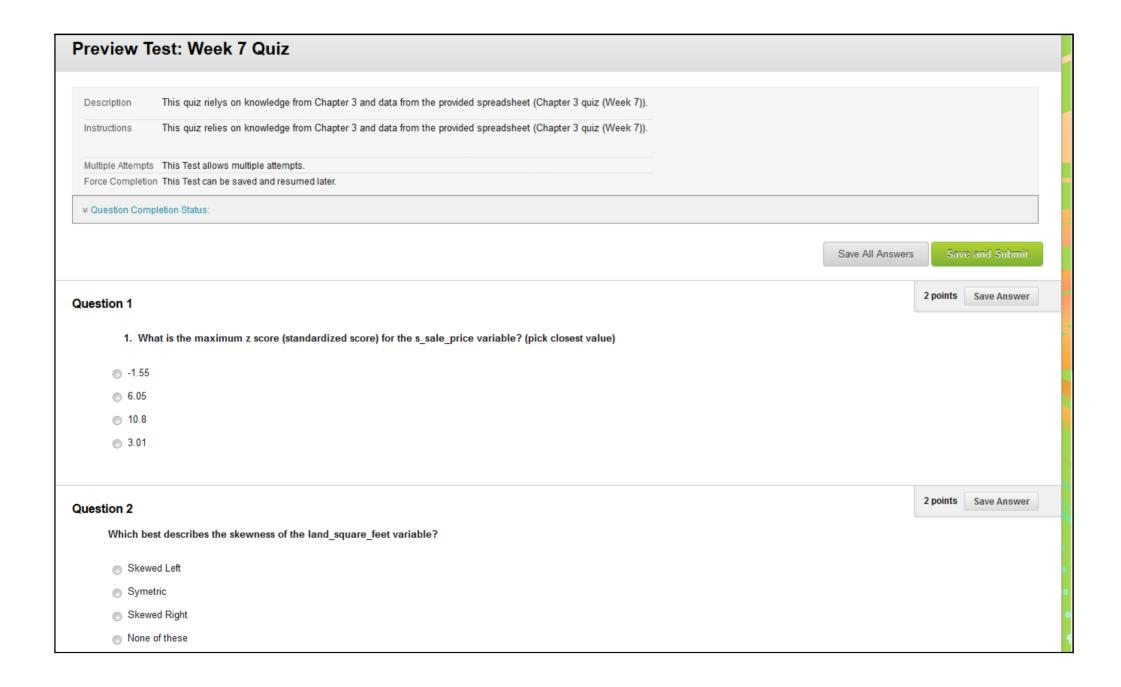
Creating Week Page/Item

Week Layout at Home

At Home Weekly Quiz

Preview Test: Week 7 Quiz

Description	This quiz rielys on knowledge from Chapter 3 and data from the provided spreadsheet (Chapter 3 quiz (Week 7)).
Instructions	This quiz relies on knowledge from Chapter 3 and data from the provided spreadsheet (Chapter 3 quiz (Week 7)).
Multiple Attempts	This Test allows multiple attempts.
Force Completion	This Test can be saved and resumed later.

≫ Question Completion Status:

[Save All Answers] [Save and Submit]

Question 1

2 points [Save Answer]

1. What is the maximum z score (standardized score) for the s_sale_price variable? (pick closest value)

○ -1.55

○ 6.05

○ 10.8

○ 3.01

Question 2

2 points [Save Answer]

Which best describes the skewness of the land_square_feet variable?

○ Skewed Left

○ Symetric

○ Skewed Right

○ None of these

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Post In Class Elements to LMS

- Before class, the in class work needs to be posted
- All PowerPoints and docs, spreadsheets, links, and what not that are needed
- Students are expected to have access to the web and LMS during class (at least by me)

Week 7 In Class Work

Enabled: Statistics Tracking
Attached Files: 2013 Fall Lecture In Class 7 1010.pptx (603 KB)
                        INFO1010 Week 7 In Class.xlsx (972.147 KB)
                        Week 7 In class.docx (18.151 KB)

This week we are working on some new data. The spreadsheets and instructions are attached to this item.

Recording Tips

- Don't be perfect
- Get a good microphone
- Budget your time
- Seek feedback
- Convey Excitement (consider standing while recording)

Next Time Through

- Reuse and Revise
- First and last segment can have timely information
- Other segments should be "Time Free"
- Write notes to your future self

Drawbacks

- Time consuming at first
- Less time in class feels "strange"

Best Plusses

- In class feedback to students
- Re-usable modules
- Custom learning pace
- Can find other sources for videos
- Students Express Appreciation!

Questions?

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