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# The Mini Studio / Video Best Practices:

Educational Videos that Work

[condor.depaul.edu/jmoore/dputc2018/](http://condor.depaul.edu/jmoore/dputc2018/)

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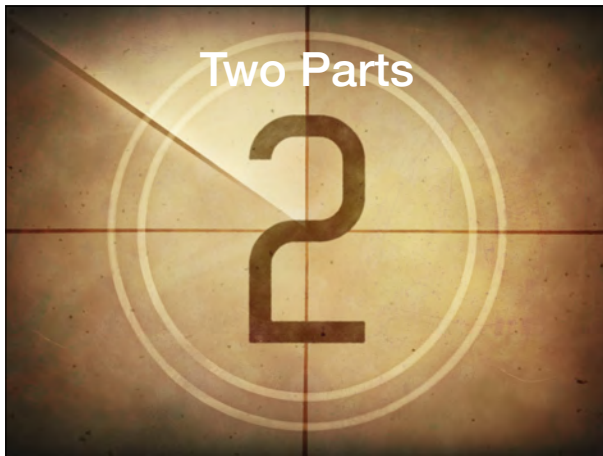
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I would like to thank my colleagues at DePaul University for their assistance, guidance, and suggestions:  
Theophilus Jamal, Josh Lund, and Rick Salisbury (now at Northwestern University),

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## This Is How I Roll

I will talk fast (as if chased by the devil)  
To leave plenty of time for Q&A  
But you can ask questions along the way



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**Hello**  
my name is

*JAMES MOORE*

- Telephone: +1 (312) 362-5870
- Email: [jmoore@depaul.edu](mailto:jmoore@depaul.edu)
- URL: [condor.depaul.edu/jmoore/](http://condor.depaul.edu/jmoore/)

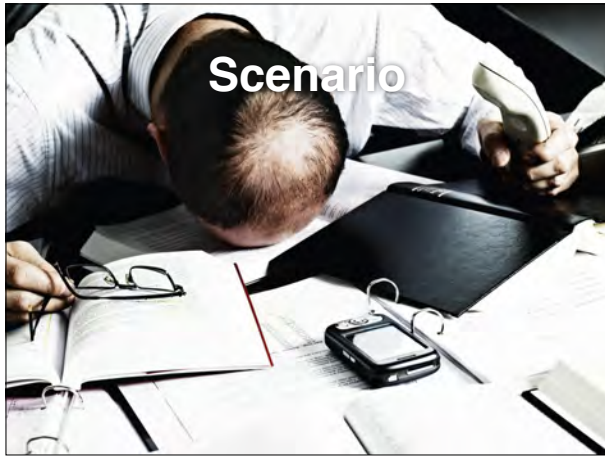
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## Easiest Way To Remember



**James** Bond - Roger **Moore**





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Avoid Classroom Recording

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## Reasons

Time to setup

Things go wrong

Imperfect sound

Interruptions

Awful lighting

Broken equipment



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## Basic Equipment

MiniStudio

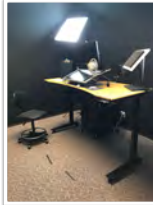
Mac Pro / Wacom Cintiq

Webcam

Backdrop

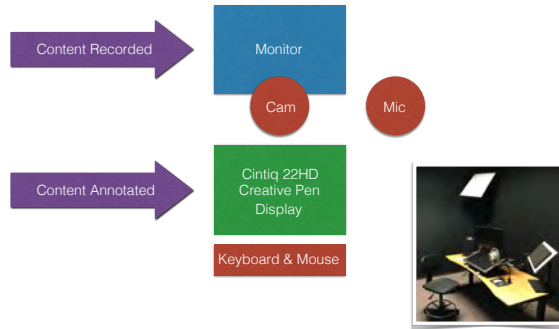
Lighting

Adjustable height desk



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## Conceptual Model



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## Two Screens



**Content Recorded**  
Abstracted view (controls hidden)



**Content Annotated**  
Full access to controls & tools

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## Brio 4K Webcam



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## Backdrop

Held up by curtain rods  
Standard size, can replace with green screen background

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## Microphone

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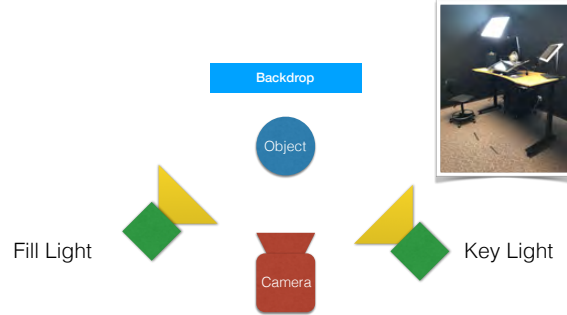
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## Two-Point Lighting



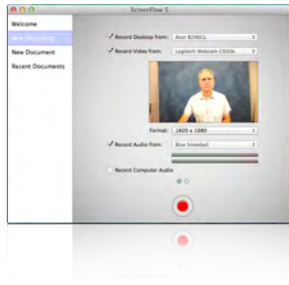
19

## Stand Up Height Adjustable Desk



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## Recording With ScreenFlow



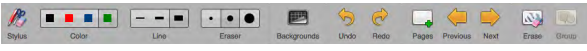
21



# OpenBoard Tools



Pen	Undo/Redo
Eraser	Pages
Highlighter	Previous/Next
Laser Pointer	Erase



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## What We Learned

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The importance of backups

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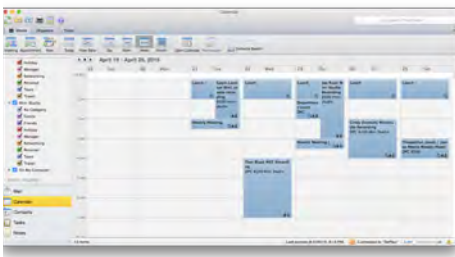
Redundancy

25



Human Intervention

26



Scheduling

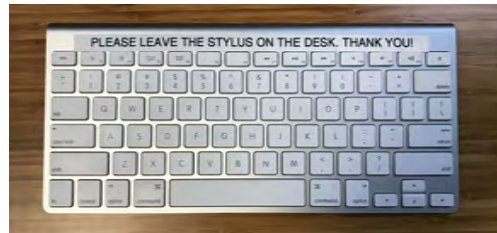
27





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Quick, rather than perfect



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Check inventory

## Inventory

- Mac Pro (Quad-Core and Dual GPU) Computer - Cost: \$2,799.00
- Cintiq 22HD Creative Pen Display - Cost: \$1,999.00
- Blue Microphones Snowball USB Microphone - Cost: \$59.00
- Blue Microphones The Pop Universal Pop Filter - Cost: \$28.99
- PylePro PMKS15 Universal Compact Base Microphone Stand - Cost \$35.05

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## Inventory

- Logitech Brio Webcam - Cost: \$198.99
- On Stage MS7201B Round Base Microphone Stand - Cost: \$21.95
- Adjustable Height Desk - Cost: \$995
- Adjustable Height Cabinet - Cost: \$156.90
- Balt Trax Stool, Model 34430 (Black) - Cost: \$182.00
- G-Technology G-DOCK ev with Thunderbolt 2TB External Dual-Hard Drive Storage - Cost: \$654.95

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## Inventory

- Belkin Pivot Wall Mount Surge Protector with 6 Outlets - Cost: \$14.49
- ePhoto Digital Video Continuous Softbox Lighting Kit - Cost: \$109.99
- Acer B296CL Monitor - Cost \$499.99
- Muslin Backdrop - Cost: \$50
- Curtain Rods: \$49
- Logitech Spotlight - Cost: \$99
- ScreenFlow - Cost: \$99.00 (10% academic discount available)
- OpenBoard - Cost: Free

**Total: \$8051.35**

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## Video Best Practices:

Educational Videos that Work



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## Five Steps

- 1.Design
- 2.Recording
- 3 Editing
- 4.Distribution
- 5.Review



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## 1: Design

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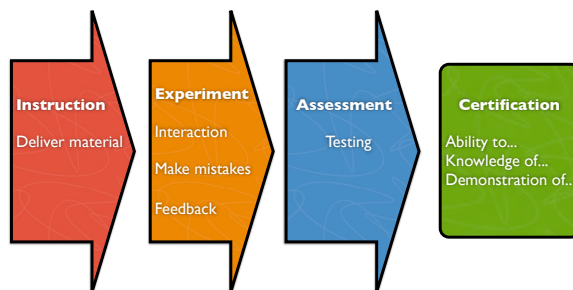
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## Backward Design



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## Learning Objectives



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## Questions

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## Why Am I Doing This?



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Does it exist already?

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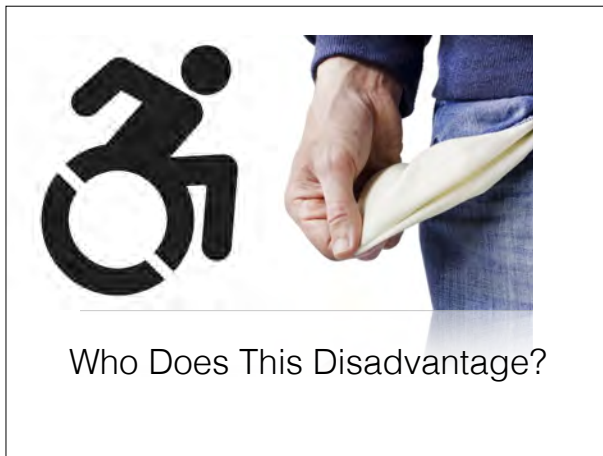
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Who Does This Disadvantage?

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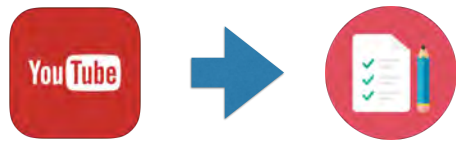
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**Short / Focussed / Activity**



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# Research



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## 12 Principles

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|------------------------|--------------------|
| 1. Coherence           | 7. Pre-training    |
| 2. Signalling          | 8. Modality        |
| 3. Redundancy          | 9. Personalization |
| 4. Spatial Contiguity  | 10. Voice          |
| 5. Temporal Contiguity | 11. Embodiment     |
| 6. Segmenting          | 12. Image          |

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## 1: Coherence

Remove unnecessary text, images, and sounds

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## 2: Signalling

Students learn better if you call attention  
to important material

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## Signaling Examples

Outline

Headings

Highlighting

Arrows and laser-pointer

Spotlight

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## 3: Redundancy

Students learn better from images and narration  
alone, than images, narration, and onscreen text

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### 3: Redundancy



Students learn better from images and narration alone, than images, narration, and onscreen text

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### 3: Redundancy



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### Possible Exception



June 7, 2016  
Trump National Golf Club  
Westchester, NY

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## 4: Spatial Contiguity

Students learn better when corresponding words and pictures are near each other

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## Spatial Contiguity

  
Spatial Contiguity

Vs.

  
  
Spatial Contiguity

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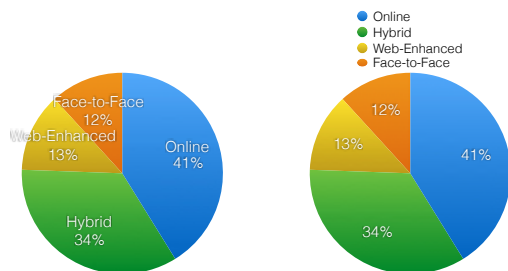
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## Spatial Contiguity



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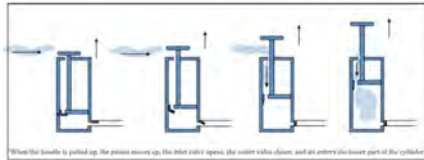
## 5: Temporal Contiguity

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Students learn better when corresponding words and pictures are presented simultaneously

## Temporal Contiguity

59



## 6: Segmenting

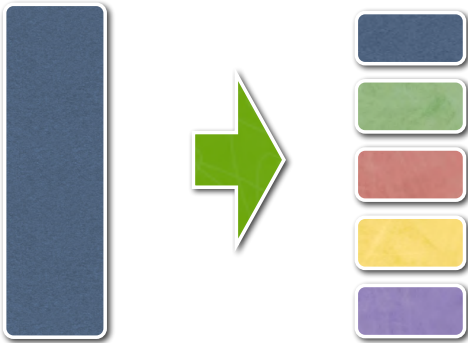
60

Students learn better with user-paced segments, than a long video



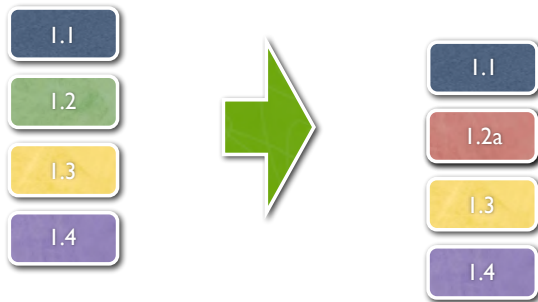
61

## Chunked



62

## Avoid Numbering



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## 7: Pre-training

Students learn better from multimedia when they have learned the names & characteristics of the main concept already



## Pre-training



Brake Shoe



Piston

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Introduction

Review

Quiz

Video

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## 8: Modality

Students learn better from graphics and narration than from animation and on-screen text

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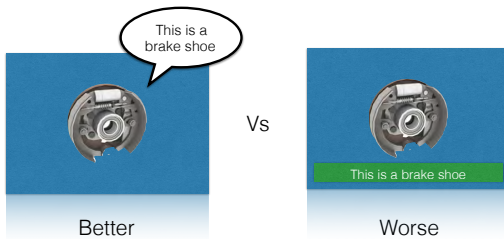
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## Modality



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## 9: Personalization

Students learn better when the narration is conversational rather than formal

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# Personalization



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## 10: Voice

Students learn better when the narration  
is human rather than a machine voice

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## Voice

Hello, my name is James Moore and I will be your instructor.

Computer narration is harder to understand

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## 11: Embodiment

Students learn better when there is human gestures, eye contact and facial expressions

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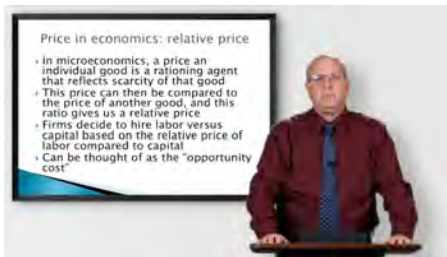
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## Eye Contact



Mike Miller, Associate Professor and Associate Dean for Quality and Compliance

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## 12: Image

Students do not necessarily learn better when the speaker's image is there

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76

# Personalization



Fade out speaker's image after introductions

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# Script

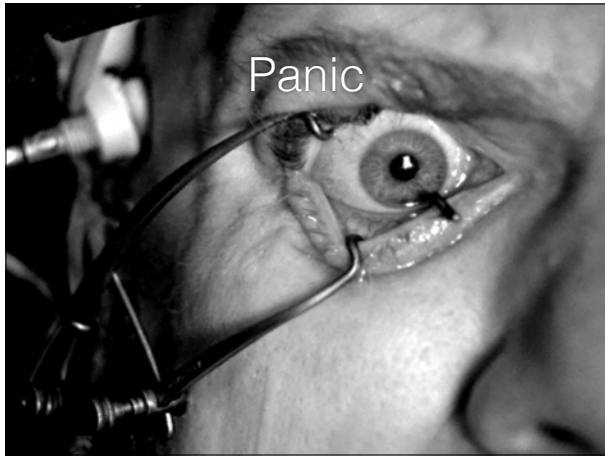
Measure twice, cut once

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## 2: Recording





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## Not Always On Screen



Content

80

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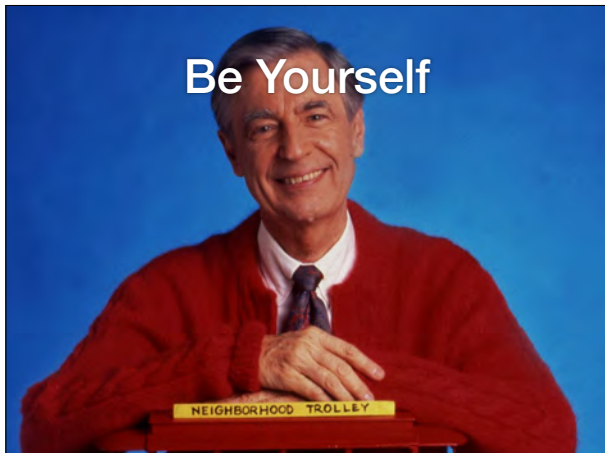
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Be Yourself



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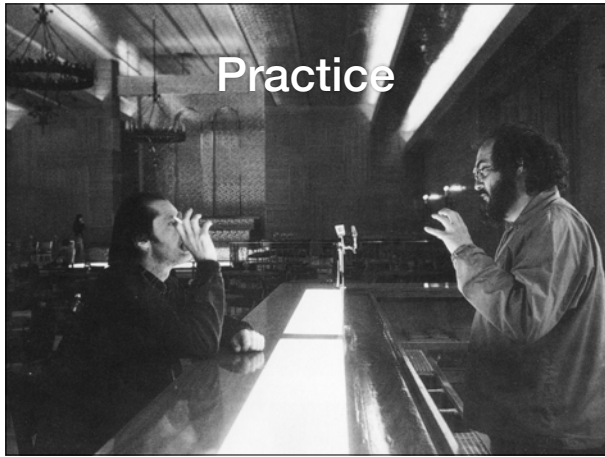
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**Posture**

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**Eye level**

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What to wear



85

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Audio



86

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Quiet

87

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## Landscape vs Portrait



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How To  
Record Video  
On A  
Cellphone Camera



**Step 1.** Turn your phone sideways  
**Step 2.** You're done.

90



## 3: Editing



91

How do you make a movie better?

Make it shorter

92

Chopping



93

Metadata

Title

Date

Keywords

Creator

Review Date





94



## 4: Distribution

95

## Environment



96

## Transcript / Subtitles

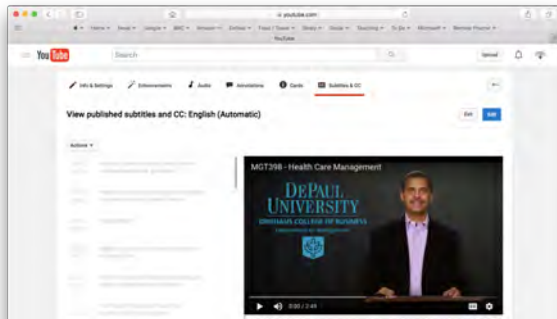
Leia:  
"I love you"

Han  
"I know"





# YouTube



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## Multiple Formats

### Download

- Takes time to save
- Mobile
- Sharable
- Avoid copyrighted content
- Downloadable can be better with slow Internet connection

### Streamed

- Streaming
- Plays instantly
- Tethered
- Harder to copy
- Use for copyrighted content

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## Context



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## 5: Review

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Done?

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## Analytics

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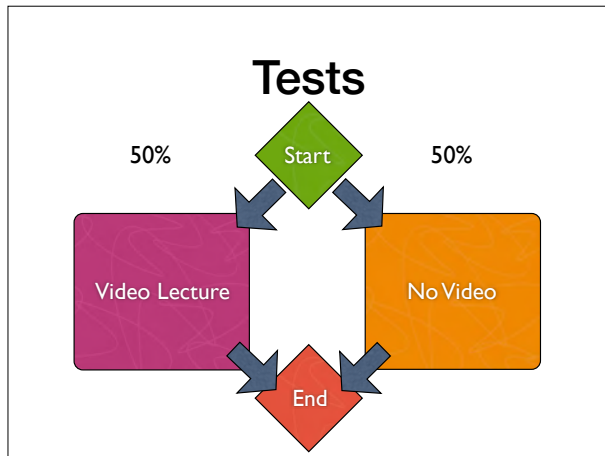
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## References

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Tufte, E. R. (2013). *The visual display of quantitative information*. Cheshire (Connecticut): Graphics Press.

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