



# Challenges and Opportunities in Designing New Multimedia ELT Materials

# The Nuts and Bolts of Digital Materials Design



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# Purpose

- Highlight the challenges and benefits of authoring multimedia content.
- Explain some of the nuts and bolts of sound recording hardware and software

# Handout and Tutorials

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## Best Audio Recording Products

esllistinging

17 videos

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# General Concepts

- GAS - A common malady among materials developers
- Gear (Gadget) Acquisition Syndrome:
  - *The obsessive, irrational, and compulsive nature to purchase new equipment or upgrade to gadgets/platforms, often without any foundation on why you need the technology anyway.*

# 1. Have a Purpose

*Just because you can design materials with technology doesn't necessarily mean they should be done.*

“Technologies are becoming inherently more unusable because they often are trying to do too much.”

## 2. Keep Things Simple

“Less is More” Principle



Develop materials based on what your audience needs and don't abandon what already works.



# Randall's ESL Cyber Listening Lab

(www.esl-lab.com, 1997)

## Greetings and Introductions

**Instructions:** Listen to each question by clicking the "PLAY" link, and choose the best answer. Press the "Final Score" button at the bottom of the page to score your quiz. See [Quiz Script](#) here.

1. <a href="#">PLAY</a> A. I'm Nancy. B. I'm from Russia. C. I'm a student.	CHOOSE ANSWER HERE ▾ ANSWER ▾
2. <a href="#">PLAY</a> A. I'm from Canada. B. I live in Chicago. C. I'm fine.	CHOOSE ANSWER HERE ▾ ANSWER ▾
.....	

# Randall's ESL Cyber Listening Lab (2011)

Web-based  
Grammar/Listening Lessons

MP4 Content for Use on  
Portable Devices

Integrated  
Grammar Lessons  
*Simple Future Tense*



Randall's  
ESL Cyber Listening Lab

www.esl-lab.com

Score so far: 0 points out of 0



## II. Listening Exercises [Top]

I. Listen to the conversation by pressing the "Play Audio" button and answer the questions. Press the "Final Score" button to check your quiz.



[ Other Audio Options: [Play RealMedia](#) | [Play Window Media](#) ]

Support for smart devices  
including the iPhone

# Creating Top-Notch Recordings

Every recording studio is its own unique environment.

Hardware (computer, digital recorders, cables, adapters, pop screens)

Software (video recorder/editor, media file converter, sound effects)

Recording Studio Environment (acoustic foam)

What works for one person might not work for another.

# Audio Production Models to a Computer

- Plan A: Not-even-consider Model (\$0)
- Plan B: Low-cost, Easy Setup Model (\$20-125)
- Plan C: Medium-Range Model (\$125-300)
- Plan D: High-End Model (\$300+)

Smart Phones and Digital voice recorders can be used to used as portable audio studios.

# Audio Recording Software

- Audacity (\$0, Mac, Windows, Linux)
- GarageBand (Part of iLife, Mac)
- WordPad Sound Editor (W/M)
- Acoustica - [acondigital.com](http://acondigital.com) (W)
- Magix Music Maker (W)
- Exstudio Audio Editor (W)
- [Aviary Myna Audio Editor \(Web-based\)](#)
- [Soundation Studio \(Web-based\)](#)

# Audio Recording Software

- FiRe (audio recording app - Apple Store App)
- CinchCast (Free iTouch/iPhone app- Post audio recordings to Facebook and Twitter)
- Sound Effects
- SoundDogs
- Partners in Rhyme

<http://www.hongkiat.com/blog/25-free-digital-audio-editors/>

# Production Studio – Plan A

Many computers have a Webcam or built-in microphone; however, these devices are designed for high-quality recordings.

# Production Studio – Plan B

- Dynamic
- Microphone (\$8-100)
- Mic Stand (\$8)
- Pop Screen (\$2-15)



# Production Studio – Plan B

- Dynamic  
microphones –  
sturdy, fieldwork  
mics
- No power source  
needed
- Condenser  
Microphones –  
wider frequency  
range – Power  
needed



[Tweakheadz.com](http://Tweakheadz.com)  
[Musiciansfriend.com](http://Musiciansfriend.com)

# Production Studio – Plan B

## Two Microphone Setup

3.5mm dual adapter (\$3)



# Commercial Pop Screen



Reduces destructive effects of plosive sounds during recordings.

# Homemade Pop Screen

## Embroidery hoop and Panty Hose



[http://www.jakeludington.com/project\\_studio/20050321\\_build\\_your\\_own\\_microphone\\_pop\\_screen.html](http://www.jakeludington.com/project_studio/20050321_build_your_own_microphone_pop_screen.html)

# Windscreen (Shield)




[redheadwindscreens.com](http://redheadwindscreens.com)

Faux fur from a fabric store

# Production Studio – Plan C

- Audio-Technica 2020 USB Mic Condenser with stand (\$100)
- 
- Sampson SP01 Spider
- Shockmount (\$29)
- 
- Professional Pop Screen (\$14)
- 





So, what do you do to  
hook up multiple  
microphones?

# Production Studio – Plan D

- MXL 990 Condenser Mic with Shockmount (\$60\*)
- 
- USB Dual Pre Audio (\$80)
- 
- Professional Pop Screen (\$14)
- 



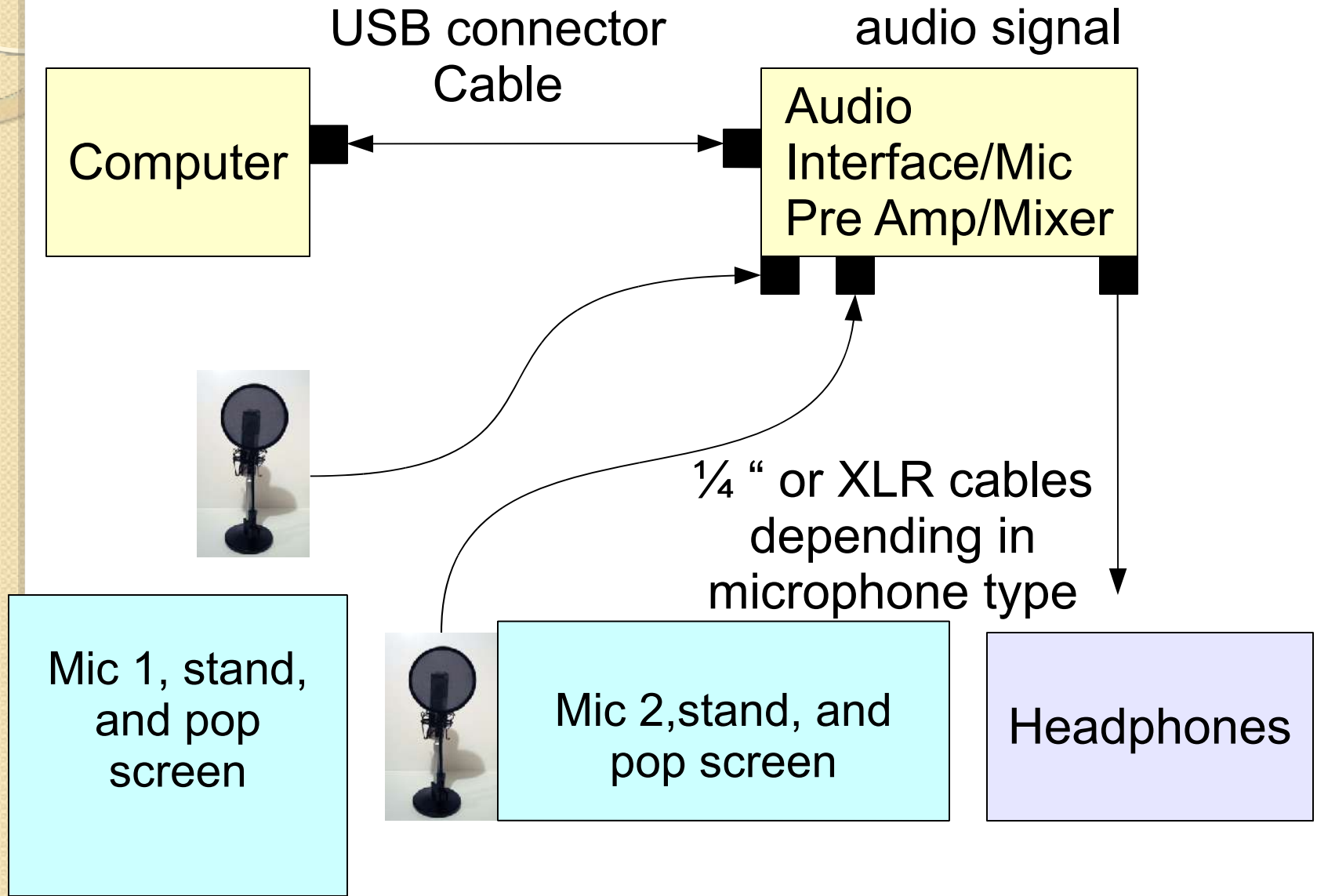
Approximate Prices as of March 2011.

# Production Studio – Plan D



# Production Studio – Plan D

Need to supply power to  
condenser mics / preamplifiy  
audio signal



# Recording Devices

- Computer
- Digital voice recorders
- Smart Phones
- Tablet PCs



# Portable Recording Studio

## Zoon H4n Recorder

- The Swiss Army Knife of portable, field recorders
- Four track system
- Inputs for audio devices
- Functions as an audio interface



# Zoon H4n Recorder



# Recording Environment

- Isolation verses Absorption / Diffusion
- Acoustic foam
- Portable recording booth



# Conclusion

- Determine the purpose of your project.
- Examine the needs of your audience.
- Avoid speed traps and being too far ahead of your time.
- Keep things simple.

PowerPoint and video tutorials online at:

[esl-lab.com/handouts/](http://esl-lab.com/handouts/) [eslrandall@yahoo.com](mailto:eslrandall@yahoo.com)