Challenges and Opportunities in Designing New Multimedia ELT Materials
The Nuts and Bolts of Digital Materials Design

Randall Davis
University of Utah
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

Best Audio Recording Products

esllistening 17 videos

esl-lab.com/handouts/  eslrandall@yahoo.com
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.
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. PLAY
   A. I'm Nancy.
   B. I'm from Russia.
   C. I'm a student.

2. PLAY
   A. I'm from Canada.
   B. I live in Chicago.
   C. I'm fine.
Randall's ESL Cyber Listening Lab (2011)

Web-based Grammar/Listening Lessons

MP4 Content for Use on Portable Devices

Support for smart devices including the iPhone

Integrated Grammar Lessons
Simple Future Tense

II. Listening Exercises [Top]
1. Listen to the conversation by pressing the "Play Audio" button and answer the questions. Press the "Final Score" button to check your quiz.

Score so far: 0 points out of 0

[Other Audio Options: Play RealMedia | Play Window Media]
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 (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/
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
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
Windscreen (Shield)

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 Interface ($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 / preamp/ify audio signal

USB connector
Cable

Audio Interface/Mic Pre Amp/Mixer

Mic 1, stand, and pop screen

1/4" or XLR cables depending in microphone type

Mic 2, stand, and pop screen

Headphones
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/  eslrandall@yahoo.com