Using Technology to Support Note-Taking, Studying and Reading

Nancy J. Aguinaga, Ph.D. and Cheryl Mader, Ed.D.
Southeast Missouri State University
University enrollment is at an all-time high

• In October 2009, 70.1 percent of 2009 high school graduates were enrolled in colleges or universities - Bureau of Labor Statistics (2010)

• Up more than 10% from 1989

• Approximately 10.8 percent in 2008, were students with specific learning disabilities - U.S. National Center for Education Statistics (2011)

• Many are 21st century learners from diverse backgrounds

• Enrollment in undergraduate institutions is expected to reach 19.0 million in 2019 - Aud, Hussar, Planty, Snyder, Bianco, Fox, Frohlich, Kemp, & Drake, 2010
Change is necessary

- Teaching to the middle leaves many behind
- Focus on the margins
- Create access
- Embrace technology
CAST believes that “barriers to learning are not, in fact, inherent in the capacities of learners, but instead arise in learners' interactions with inflexible educational goals, materials, methods, and assessments.”

*Teaching Every Student in the Digital Age*, p. vi
UDL

• A curriculum framework

• Flexible and supportive for all, not one-size fits all

• Decreases (unintentional) barriers that limit access

• Based on brain research

UDL Principles and Practice
Diversity is the norm, not the exception

PRINCIPLES OF THE UNIVERSAL DESIGN FOR LEARNING FRAMEWORK

1. Provide **multiple**, **flexible** methods of presentation/representation

2. Provide **multiple**, **flexible** methods of expression/apprenticeship

3. Provide **multiple**, **flexible** options for engagement
Recent changes in technology:

• Make it possible to communicate with more people than ever before – not in attendance
• Enable learning any time, any place, any how
• Facilitate personalization
• Promote participation in content, knowledge, and collaboration

Introduction to Livescribe

The SmartPen: **How does it work?**
Introducing Livescribe's Newest Smartpen

With a sleek new design and enhanced features, the Echo smartpen is Livescribe's most powerful and easy to use smartpen yet.

- **Micro-USB Connector**: Transfers notes and audio to your computer and recharges your smartpen using a standard cable connection.

- **Audio Jack**: Standard 3.5mm jack fits your own earphones or the Echo 3-D Recording Premium Headset to enable binaural recording.

- **Microphone**: Capture your meetings or lectures with crisp clear sound.

- **OLED Display**: High-contrast OLED display makes it easy to navigate smartpen apps.

- **Built-in Speaker**: Built-in speaker produces rich full sound to play back your recorded audio.

- **Memory Storage**: Holds 400 or 800 hours of recorded audio. (4GB and 8GB models available)

- **Soft Rubber Grip**: The new ergonomic design and soft rubber grip provide comfort while writing.

- **Replaceable Ink Tip**: Simply remove the ink cartridge with your fingers and insert a new one.
Blackboard Discussion 2-17-09

Current:
- Bb 7.3
- Upgrade summer to Bb 9
  includes Community + Content

Anthony Cyplik

Melissa Anderson

Outcomes/Data Assessment:
But wait…
There’s More!
Our research

• Survey
• Demo of Smartpen
• Livescribe Desktop
• Volunteer note-takers
• Notes were posted
Perspectives of students’ perceptions of how they best learn and study

Approaches to studying
Deep Approach, Strategic Approach, Surface Apathetic Approach

Focusing on results related to the Strategic Approach to studying

87% reported they are strategic in study skills YET
66% reported they do not follow up on suggested reading
57% reported they write down excessive information from a lecture
73% reported they are not able to prioritize and synthesize information provided in a lecture
Technology can support Universal Design for Learning

1. Note-Taking
2. Studying
3. Reading

Technology can be used as a layer of support for students with diverse learning needs.
NOTE-TAKING

Developing listening and note-taking skills may prove to be overwhelming, making the understanding of content difficult.
Organization, study habits, class participation, active learning, and ability to synthesize information
Making connections, successive presentations
Great potential for learning in general

Examples
– Comprehension – Incredible Inferences
– Character consideration
– Category tag board game

Videos

Augmentative and Assistive Communication Pages
Talking tests
Running records
Talking word walls
Possible uses of Smartpen

- Oops, I missed something, post later
- One student takes notes/professor posts
- Students purchase their own
- Have 5-7 for checkout
- Class set
- **Apps**
- ?
Questions?

Thank you!

Be green and prosper