

# Success and Challenges of Using iPads for Teacher Education

## CSOTTE Conference

Austin Texas

Dennie Smith, Professor

Cindy Boettcher, Clinical Professor, Teaching, Learning and Culture

Texas A&M University

10.5.12

# Overview of Session

- ▣ iPad Integration Fall 2011 and Spring 2012
- ▣ Student Survey
- ▣ iPad apps
- ▣ Tensions of an Interactive Classroom
- ▣ Professor's Observations and Take Aways
- ▣ Panel Comments

# iPad



# Foundations of Education in a Multicultural Society

- ▣ Course Basis
  - 19 students (Experimental Group)
  - 23 students (Control Group)
  
  - Freshmen
  - Studying Teacher Education

# Goal of the Course

- To provide prospective teachers with
  - Impact of Culture on Teaching and Learning
  - Insights into the cultural, historical, and philosophical foundations of education
  - Multicultural society



# Expectations for Technology Integration

- Mobile Learning \
- Anytime and Anyplace
- Learning “in-context”
- Finding, evaluating and using information



# The Lecture



# Transition Into a Technology-Integrated Classroom

## PROFESSOR-DIRECTED


1. Expository
2. Text-book (single resource)
3. Lecture
4. Paper
5. Multiple choice exam
6. All-knowing professor

## PROFESSOR & STUDENT-DIRECTED

1. Guiding
2. Multiple resources
  1. Web resources
  2. YouTube, iTunes University, etc.
3. Inquiry-based
4. Paperless
5. Short answer/problem-solving exam
6. Facilitating professor

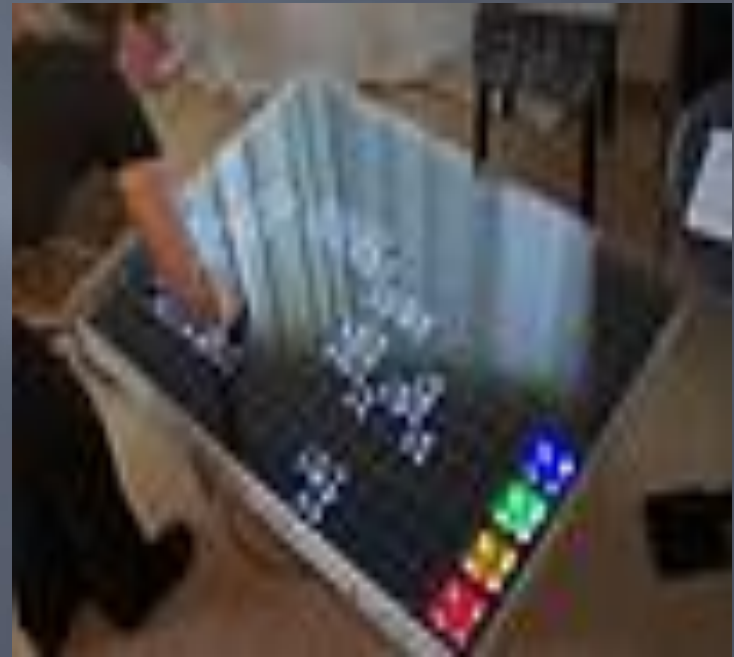


# Similarities

- 
1. Assessments
  2. Content
  3. Pedagogy
  4. Teacher

# Pedagogy

- ▣ Problem-solving
- ▣ Engaging
- ▣ Interactivity
- ▣ Collaborative Learning
- ▣ Finding, evaluating
  - and using information



# The “Flip” Classroom

- ▣ All-inclusive classroom: teacher + student + technology
  - What do we call this?
- ▣ Enhancing learning experiences
  - BEFORE class
    - read, watch videos, complete assignments, and post discussions
  - DURING class
    - engagement of students
      - problem solve
      - experiential learning

# Research

- ▣ Group I: iPads
- ▣ Group II: Control Group
  
- ▣ Content Same
- ▣ Assignments Same
- ▣ Professor Same

# Research: Experience with Technology

- ▣ Experience with Technology

- ▣ Pre-survey

- ▣ Group 1      2.15      SD .88

- ▣ Group 2      2.26      SD .63

- ▣ Post-survey

- ▣ Group 1      3.18      SD .58

- ▣ Group 2      3.79      SD .49

- ▣  $F=13.47, p<.001$       Medium Effect Size (17.4%)

# Research: Competence with Using Technology

## ▣ Pre-survey

- ▣ Group 1      3.0      SD .79
- ▣ Group 2      3.1      SD .5

## ▣ Post-survey

- ▣ Group 1      4.0      SD .59
- ▣ Group 2      4.05      SD .89

▣  $F=12.79, p<.001$       Medium Effect Size (16.7%)



# Research: Likelihood to Use Technology for Educational Purposes

## ▣ Pre-survey

- ▣ Group 1      2.27      SD 2.23
- ▣ Group 2      2.28      SD .91

## ▣ Post-survey

- ▣ Group 1      3.8      SD .90
- ▣ Group 2      3.0.05      SD .92

▣  $F=13.02, p<.001$       Medium Effect Size (16.9%)

# Research: Improvement in all Three Variables

- ▣ Improvement Due to Variable Controlled
  - Teaching Method that the Instructor Used
  - Using Technology for Class Assignments

# Survey Specifics

## ▣ Top Five Items

- ...iPad easy to use 94.04
- ...the iPad in class to look up things 92.32
- ...iPad to communicate 90.54
- ...iPad in class 89.75
- ...prepare me for future work 87.44

# Survey Specifics

## ▣ Bottom Items

- ...use of Facetime 44.74
- ...use iPad for notes 59.07
- ...use for eBooks or text 59.55
- ...use iPad to type 65.63

# Apps



# Apps

- ▣ Teacher Pal
- ▣ eClicker
- ▣ Dropbox
- ▣ YouTube
- ▣ Pages
- ▣ Keynote
- ▣ Blackboard Mobile Learn



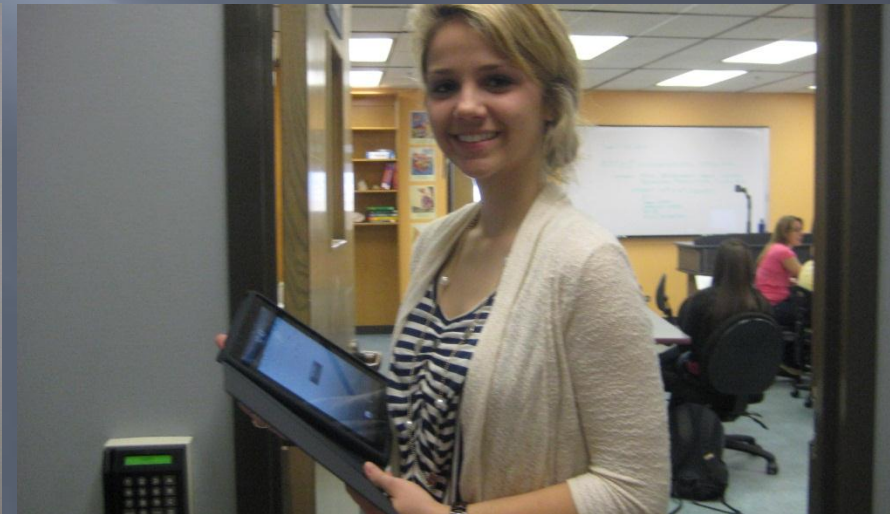
# Functions



# iPad Functions

- ▣ Notes
- ▣ Video
- ▣ Facetime
- ▣ Photography
- ▣ Gaming
- ▣ Searching the Web

# Backpack to iPad



# Common Learning Technology

- ▣ All Students Had iPads 24/7



# Observations

## ▣ Students

- Engaged while using iPads
- Used to support discussions
- Define unfamiliar concepts
- Collaboration with students

## ▣ Instructor

- Encourages use of iPad
- Projects iPad on screen
- Using to find information to support (topic)
- Apply to discussion/debate



# Tensions: Adapting to a Mobile Classroom

- ▣ Professor and student “discomfort”
  - Continuously adapting instruction and learning
- ▣ Generational gap
- ▣ Effect on student learning
- ▣ Compared to other courses
- ▣ Addition to Texting and / or Facebook
- ▣ Using iPads appropriately



# Current Practices

- ▣ iBook
- ▣ Apple Authoring System
- ▣ Accommodations for Students



# Questions and Comments

