# Need to teach students how to write lesson plans? There's an App for that!

**Presenters: Professors Jane Thielemann-Downs, Janice Nath, Ping Chen, and Irene Chen**
**University of Houston Downtown**
**CSOTTE 2012**

# Moving from idea to Implementation

- Create an interdepartmental team
  - Urban Education (content) & Computer and Mathematical Sciences (programming)

- Design a “Lesson Plan tutorial software  iApp” program to help student-teachers write appropriate student-centered lesson plans.

  Platforms
  - Designed to use with the Apple iOS on an iPAD and MAC Computers
  - Create a similar web-based version  for multiple platforms:  PC/ Windows and ANDROID-based smartphones.

# Product Vision

- **Design an iApp to provide a supportive learning experience that develops students' understanding of a constructivist, student-centered lesson plan.**
- **Provide comprehensive text, graphic information and samples for each lesson plan component:**
  - **Goals / TEKS / Objectives / ELPS**
  - **Focus / Rationale / Connections**
  - **Materials**
  - **Teaching Strategies**
  - **Assessment**
  - **Closure**
  - **Accommodations**

# A successful App solves a problem.

- **PROBLEM: Current  instruction did not support students' development and understanding of a constructivist lesson plan**
  - **Some students still wrote teacher-centered lesson plans**
  - **Some students simply copied a lesson plan from the Internet**
  - **Students viewed a lesson plan as a time consuming chore**

- **SOLUTION: a Lesson Plan iApp with teaching components could help students develop a deeper understanding of a constructivist lesson plan.**

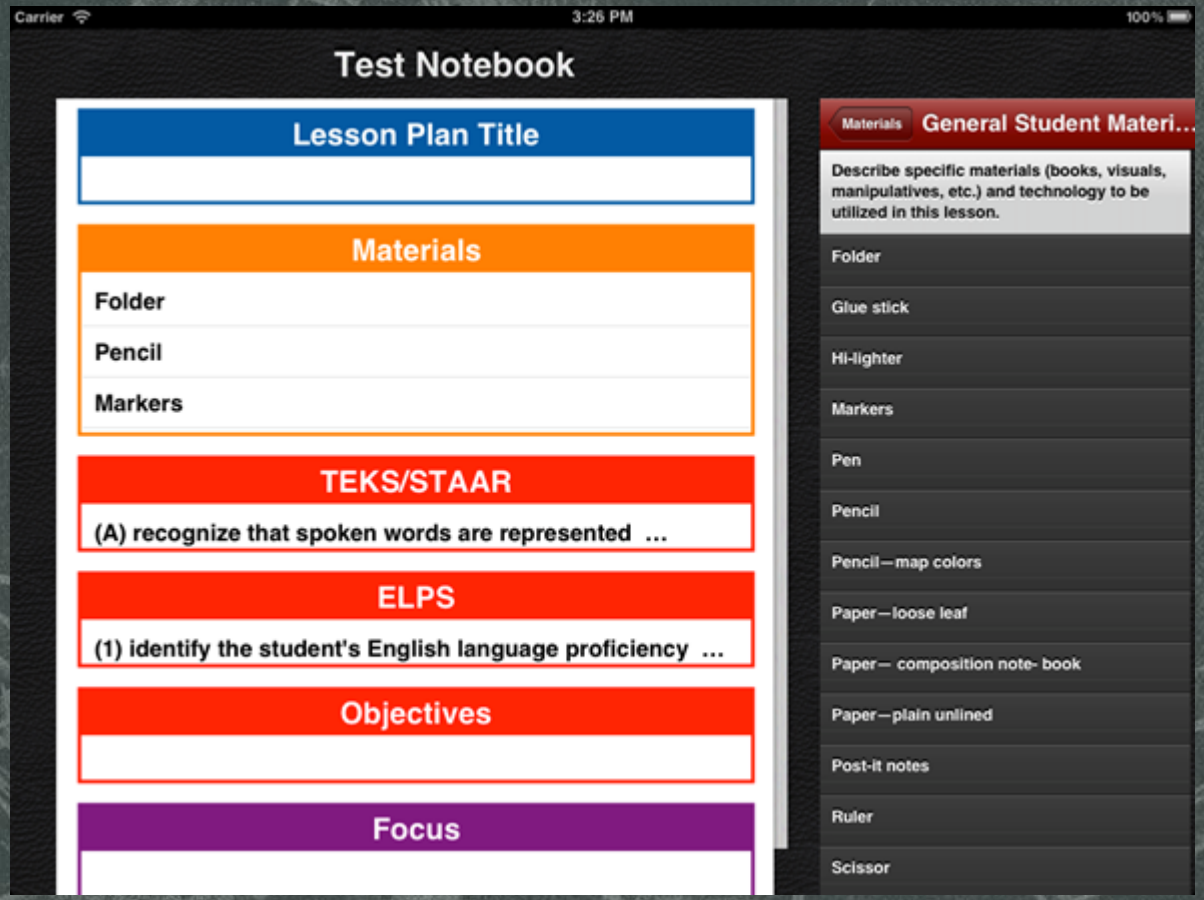
# Project Timeline

Phase I: Spring 2012 – Communications and storyboarding
Minimum functions

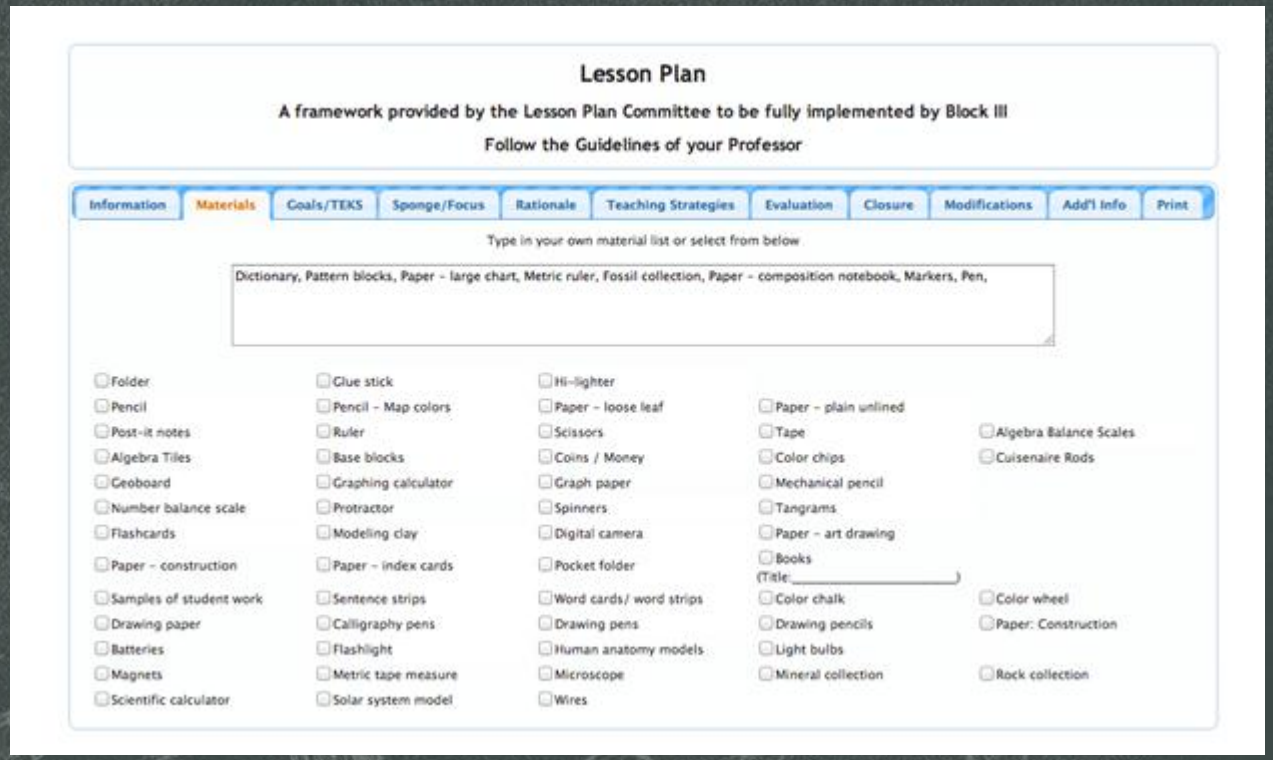
Phase II: Summer 2012 – Product prototype
Test Functions

Phase III: Fall 2012 – Recursive feedback and revisions
Fully functional

# Phase I: Spring 2012 – Begin communications and storyboarding for prototype

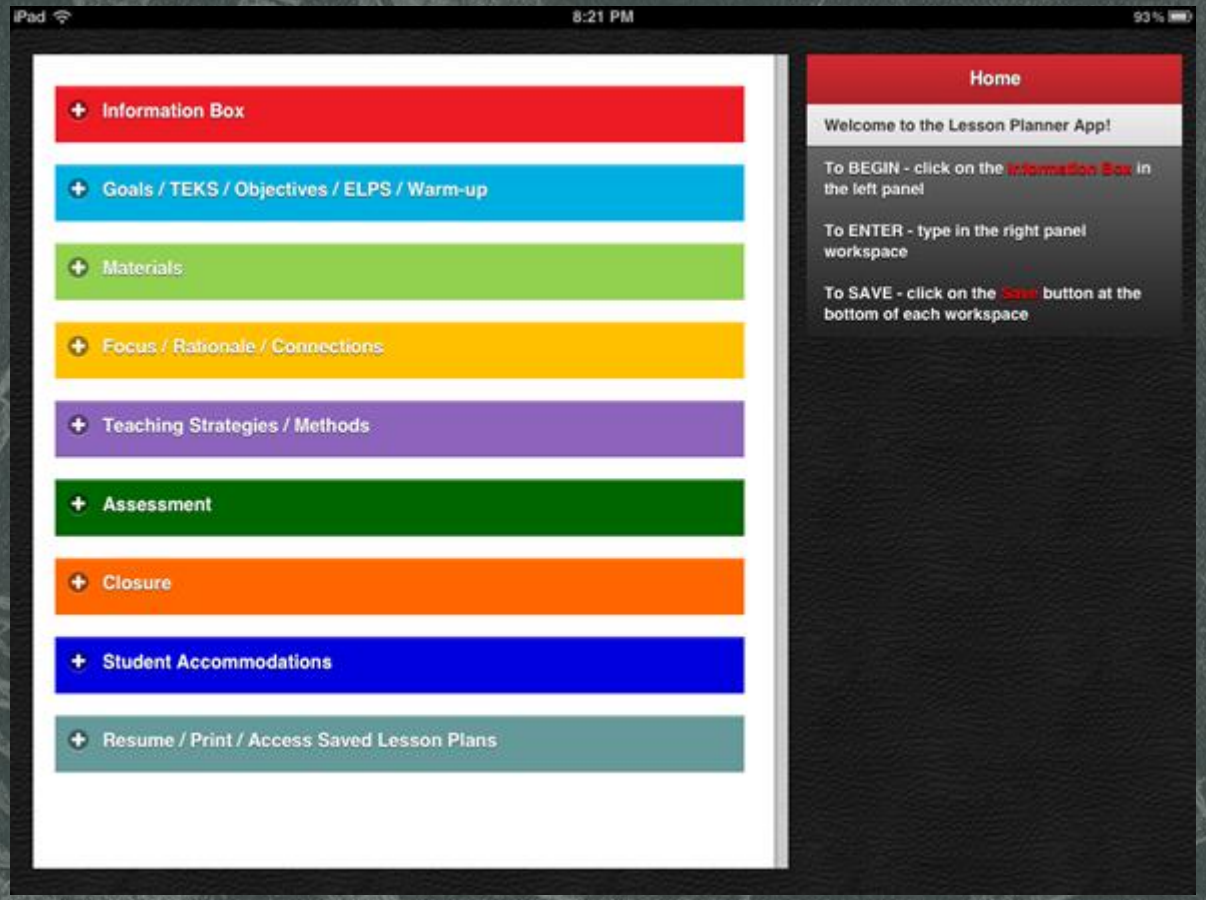



iPAD Version

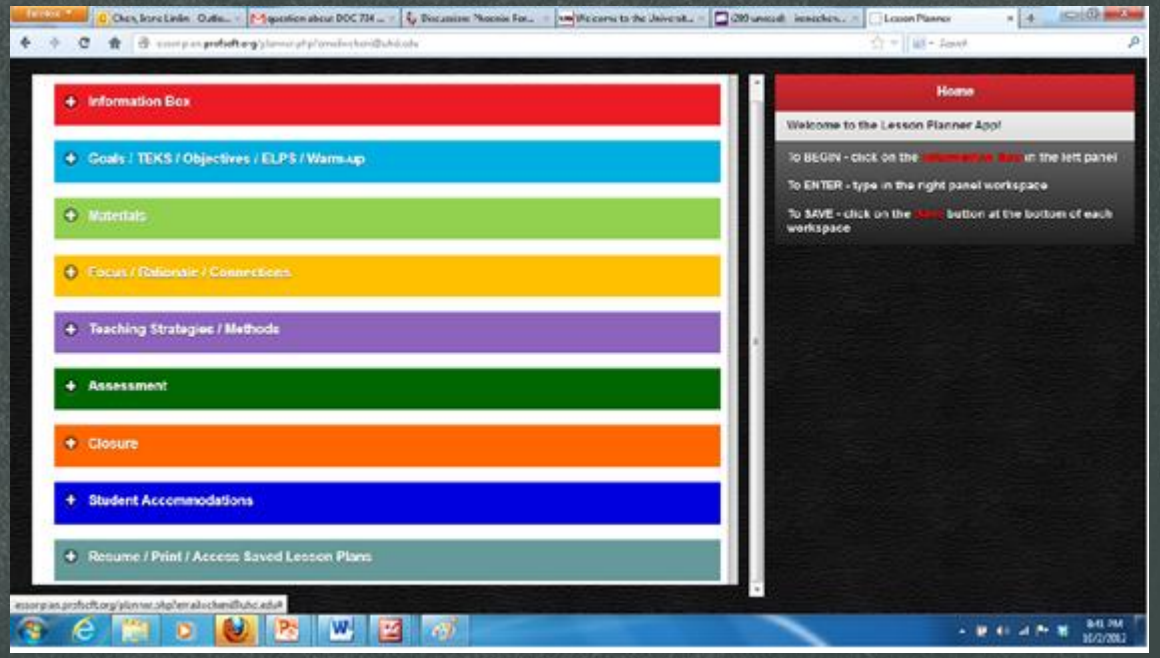



Web-based Version

# Phase II: Summer 2012 – Produce product prototype
## Review and test Functions




iPAD Version




Web Version

# Our Technology team collaborators: Professor Ping Chen and student David Hinote

Subtitle


**Dr. Ping Chen**

**Professor**

Computer and Mathematical Sciences Department

University of Houston-Downtown

**Phone: (713) 221-2764 Fax: (713) 221-8086**

**Email: chenp at uhd dot edu**

AI Lab : **S618 @ Main Building, Phone: (713) 221-8967**


**Links**

- Curriculum Vitae
- Research
- Selected Publications
- Professional Services
- Grants
- CS REU site
- RA Positions

Dr. Ping Chen is a Professor of Computer Science and the Director of Artificial Intelligence Lab at the University of Houston-Downtown. His research interests include Bioinformatics, Data Mining, and Computational Semantics. Dr. Chen has received five NSF grants and published over 50 papers in major Data Mining, Artificial Intelligence, and Bioinformatics conferences and journals. Dr. Ping Chen received his BS degree on Information Science and Technology from Xi'an Jiao Tong University, MS degree on Computer Science from Chinese Academy of Sciences, and Ph.D degree on Information Technology at George Mason University. Here is my CV.

# App Development Process -1

- The application was initially developed for use on the Internet by using the Jquery Mobile framework, HTML, Javascript, and PHP.
- During construction and development, it was hosted on a public Web server so anyone could access it during construction.
- Corrections and improvements to the program were made based on user input during and after construction.

# App Development Process - 2

- Once complete, the web application was turned into a native iOS application using the Cordova library for Xcode.
- Cordova made it possible to reuse most of the code developed for the web version.  The result is an iPad application that is almost identical to the Web version in appearance and functionality.
- Once converted, Apple's Xcode IDE was used to package the app and test on simulators and actual iPads.

# Software tools provided by Apple iOS Development Center

Xcode is Apple's powerful integrated development environment (IDE)

Xcode is presented in a Workspace Window

provides users with the tools needed to develop apps
Xcode toolset includes the instrument analysis tools,
iOS Simulator, compilers, and specific frameworks.

Xcode makes it possible to ensure the application is working properly before it is released.

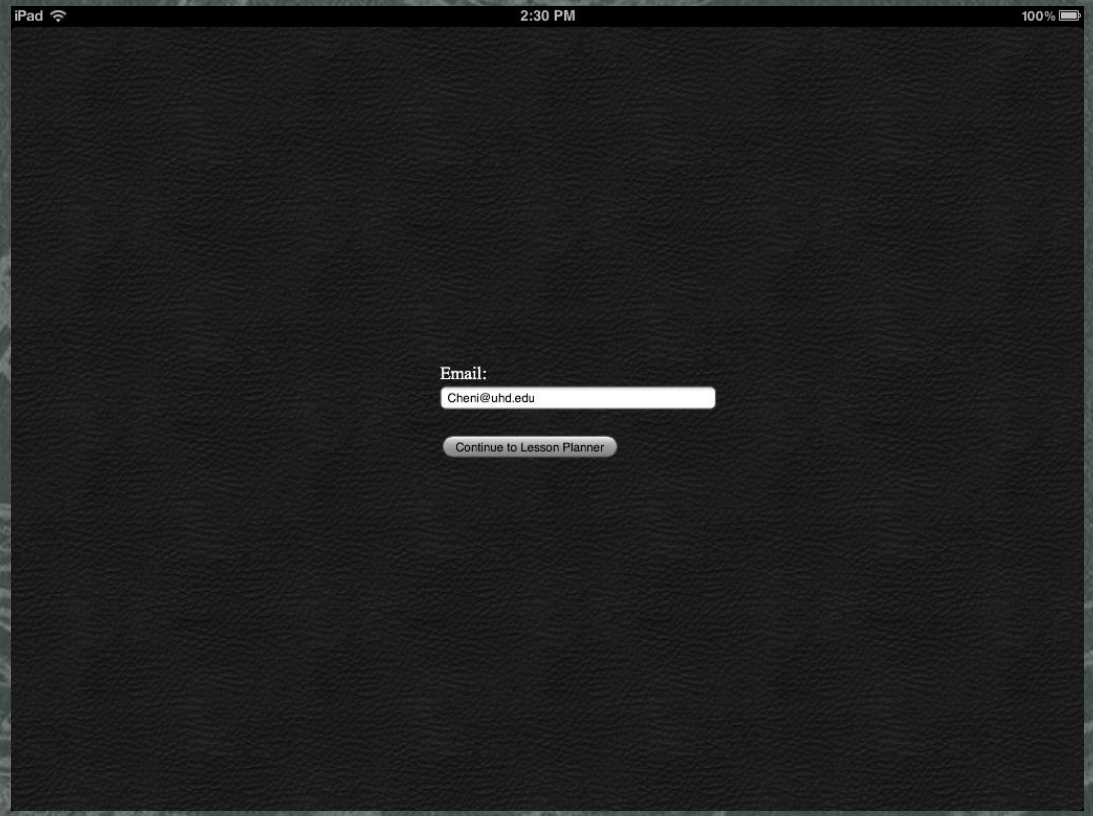
# Phase III: Fall 2012 – Recursive feedback and revisions into fully functional model

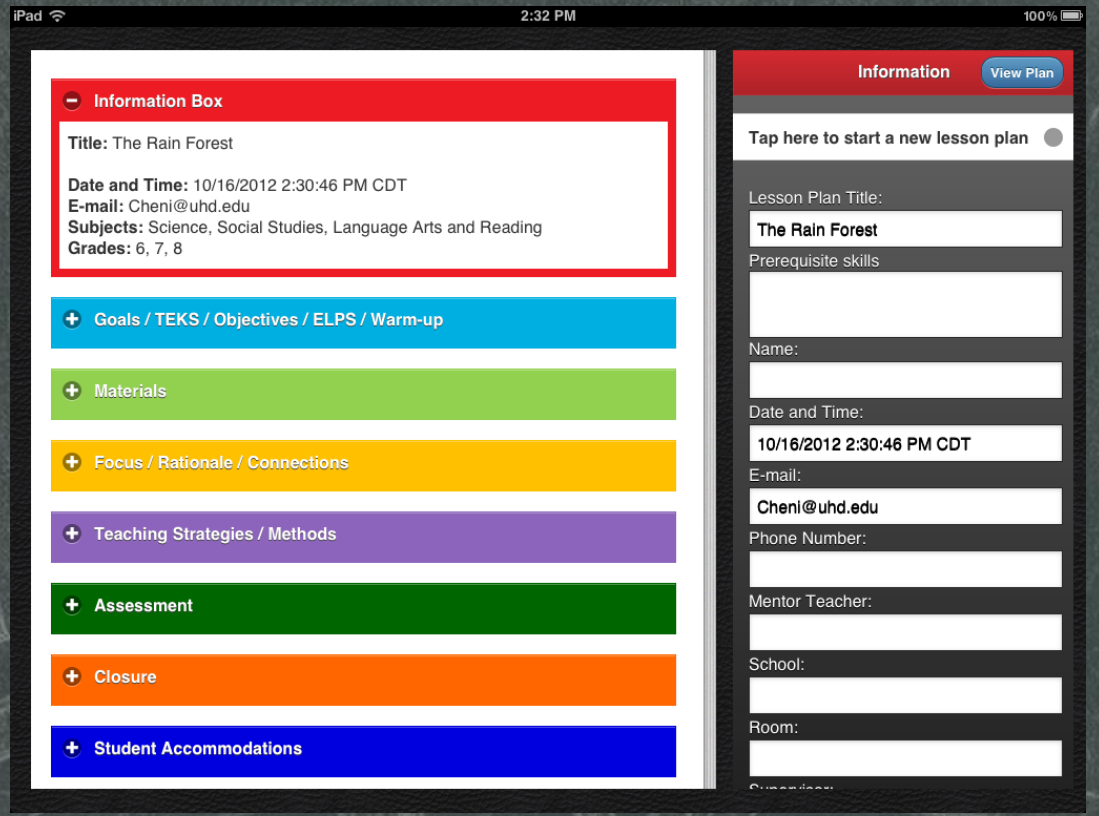
- Acquire a permanent Web address
  - Homepage URL: http://www.professorsoft.com/
- Pilot testing with UHD teacher candidates
- Submit App to Apple iOS Development Center for approval


iPAD Version

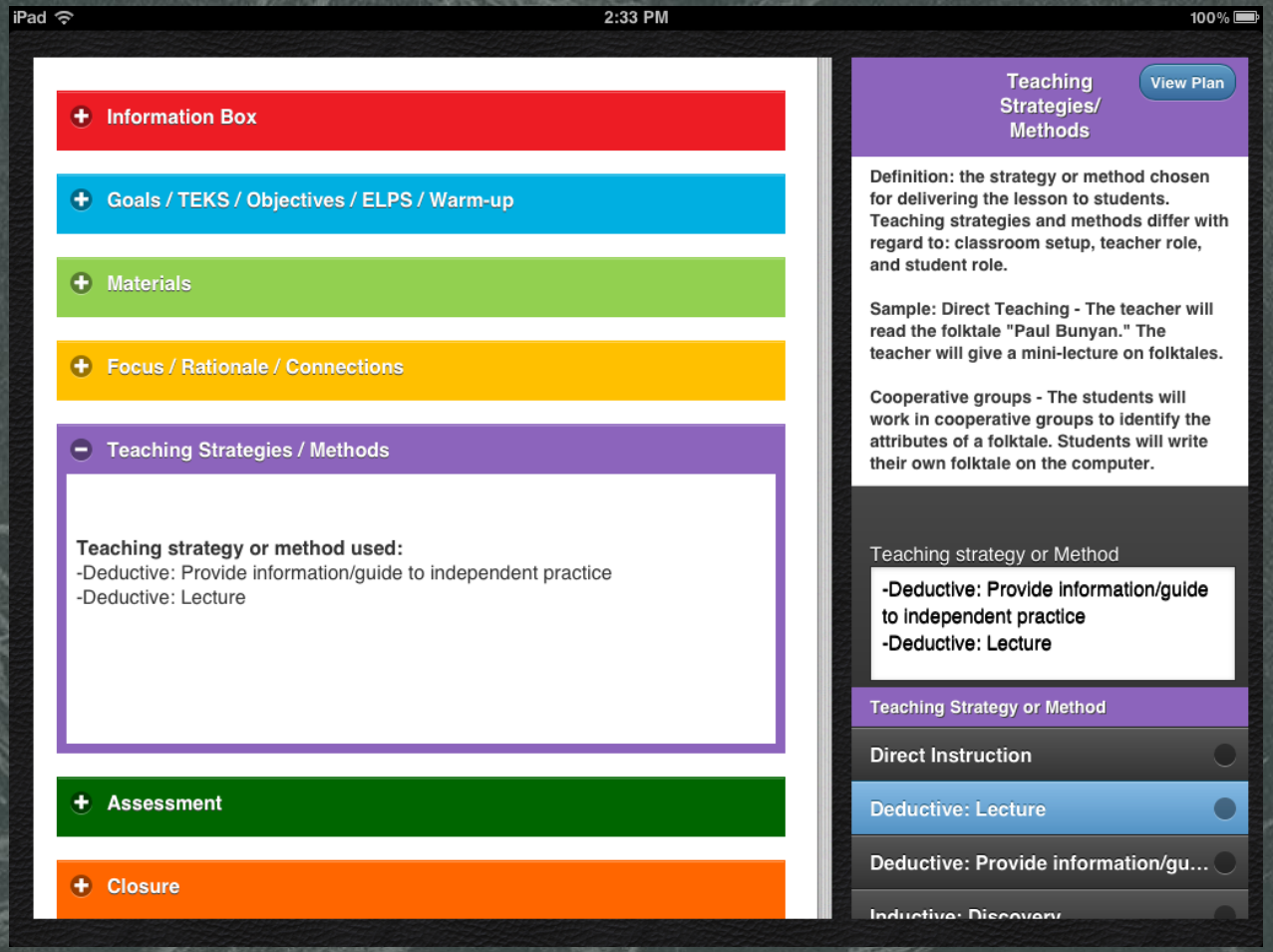

Web Version

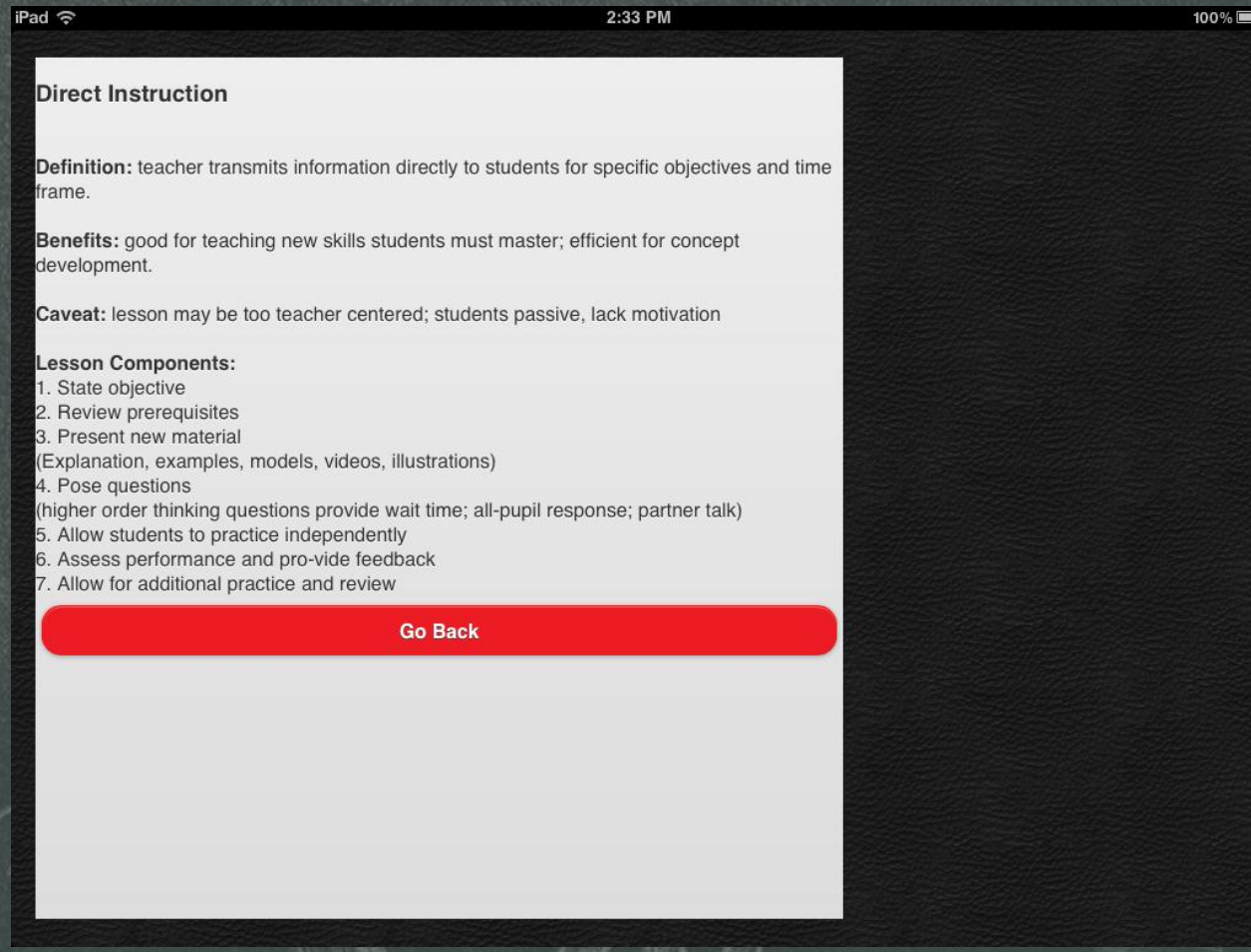
# Log In & First Page



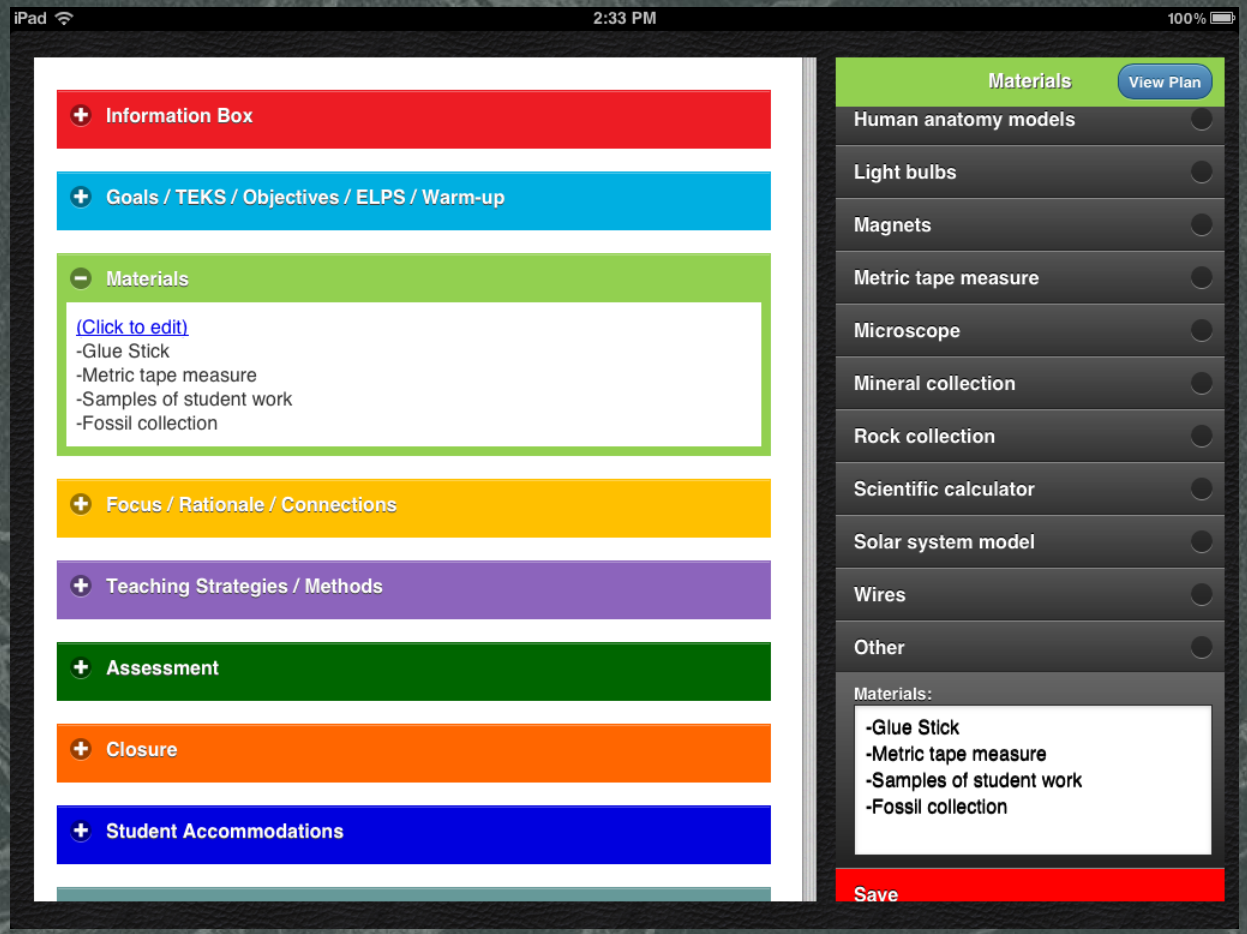



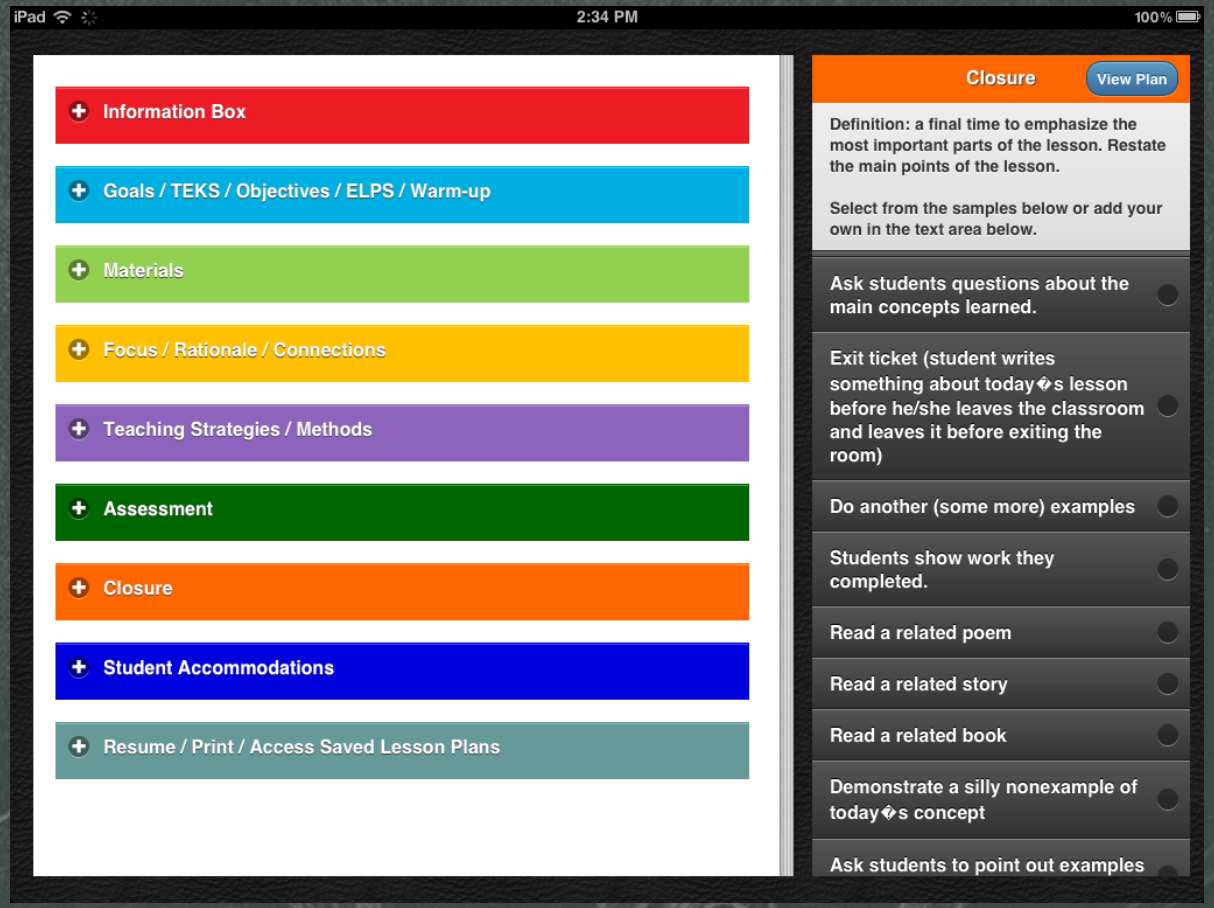
# Teaching Strategies & Pop Up Window



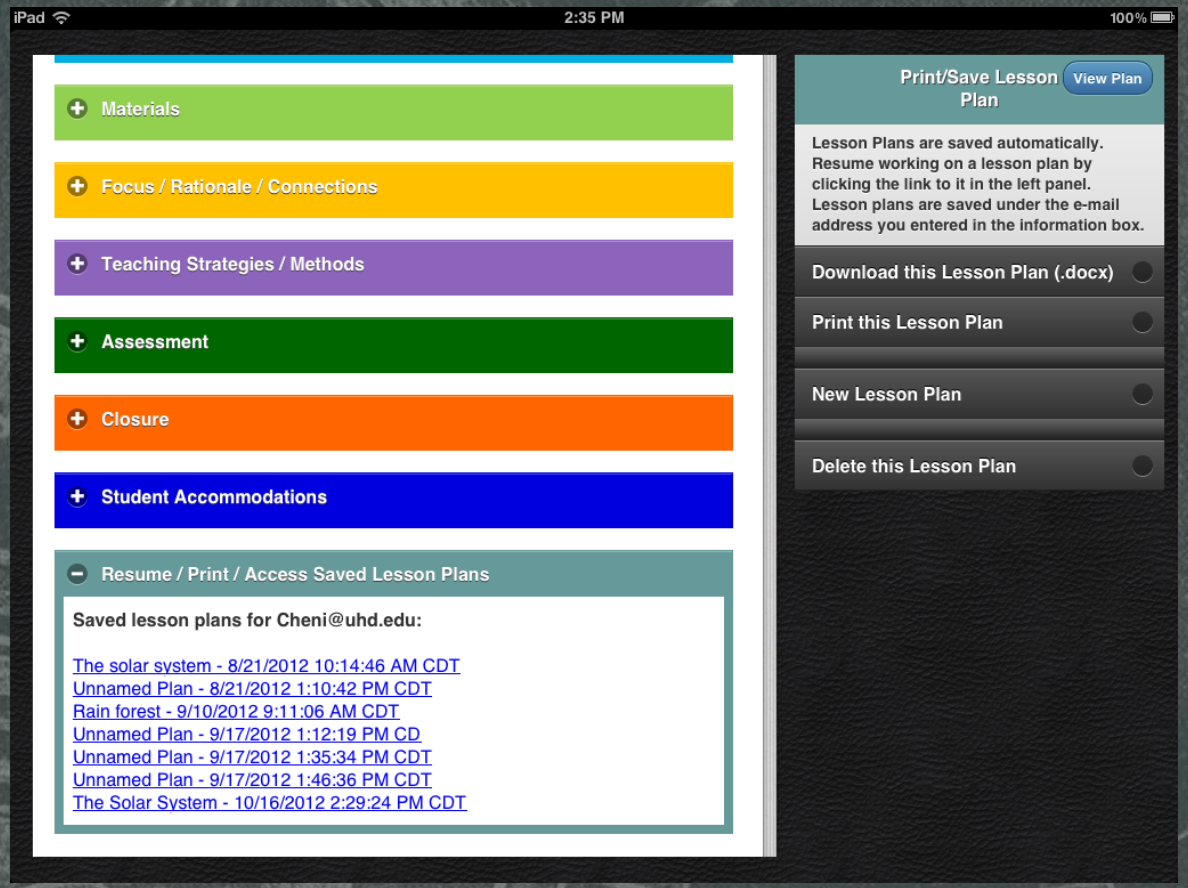



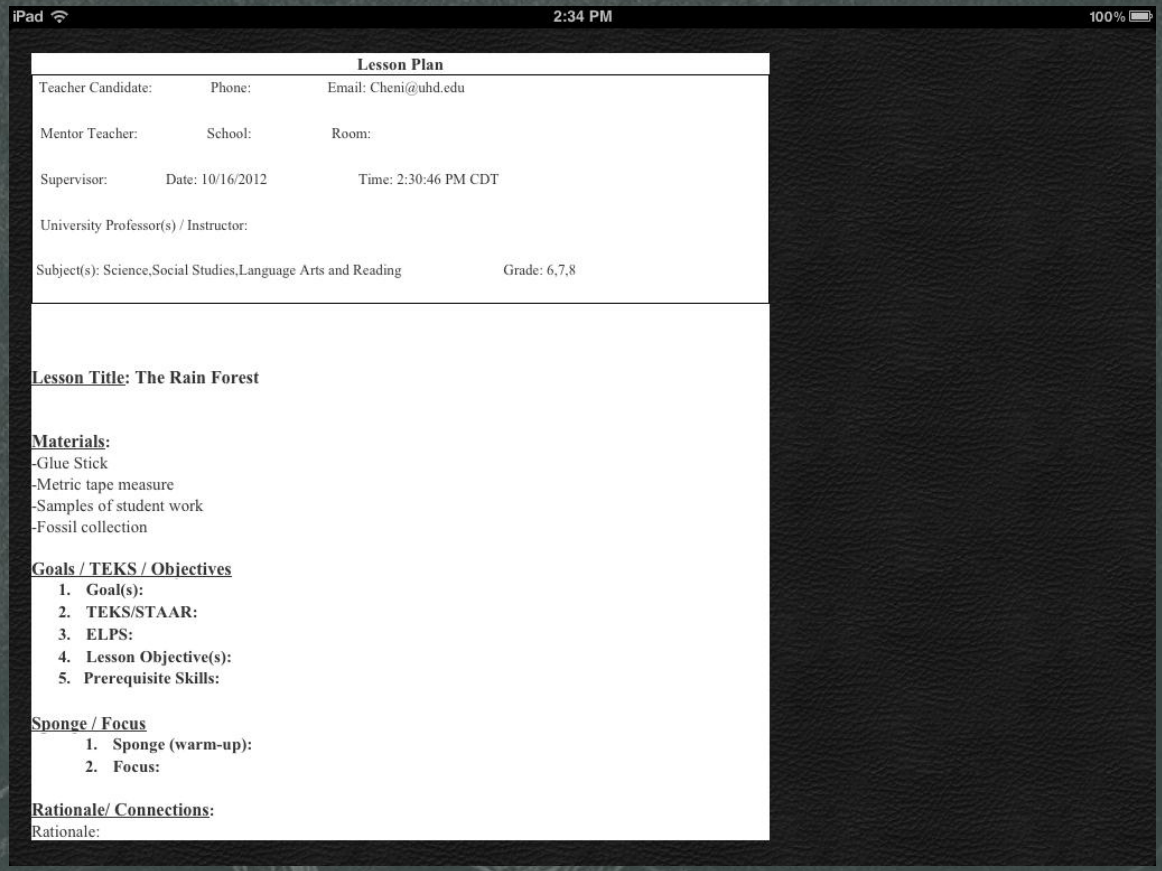
# Materials & Closure



# Archives & Output



# A successful App should offer the user a positive experience.

We received positive Statements from students regarding:

- Innovative experience:
  - Gained knowledge of lesson plan components through visual reinforcement
  - Motivated and encouraged by numerous samples and prompts
- User Friendly
  - Easily accessible on web: students could easily produce and save lesson plans
  - Ease of use: intuitive quality high, consistency in User Interface high
- Quality of design
  - Attractive, easy to read, high quality colorful design

# App Demonstration, Questions, & Feedback

This Lesson plan iApp now available on web:
www.profsoft.org/
www.professorsoft.com

iPad version available soon!

Dr. Jane Thielemann-Downs
thielemannj@uhd.edu