Young Chefs for iPad

Client Meeting Report
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Overview

Young Chefs is a program designed to teach science to children through cooking. Currently, the program uses a website with PDF curricula for teachers. Our job is to port these lesson plans to an iPad app that the students can use both in class and at home, something the current system does not allow.

The app will consist of experiments that the students can perform. Each experiment follows this structure:

1. Front matter (introductory readings on the topic, videos, diagrams, etc.)
2. Fun opinion questions to engage the student (e.g. "What do you like most about chocolate?")
3. Initial hypotheses (e.g. "What do you think will happen to chocolate when heated to 70°C?")
4. Steps for the experiment (a list of pictures and text that the student swipes through)
5. Record observations in a digital "lab report" (take photos, write descriptions, fill in tables, etc.)
6. Display final lab report, comparing initial hypothesis with final observations

Prioritized Feature List

- Interactive experiments and lessons which are clear and engaging enough to be performed by students without the aid of a teacher
    - Experiments will be organized into a series of ordered module classes, such as `FrontMatter`, `Description`, `Steps`, `LabReport`, etc (see Experiment Modules). Designing this extendable class structure is a top priority.
- Lab Notebook accessible from all modules within an experiment so students can take notes at any point
- Social Integration through Twitter, Facebook to allow students to share their findings

- New experiments can be created and imported relatively simply by non-developers (namely curriculum writers)
- Experiments can be loaded in from a server, allowing curriculum writers to push new content to users without an app update

Experiment Modules

Each experiment will be an ordered list of filled modules, each in charge of communicating clear information to the student or prompting an interaction from the student. The current modules are as follows, in order of essentialness:

- `Description Module` : *displays text and images to communicate key concepts.*
- `Steps Module` : *displays a sequence of Description Modules to communicate clear, ordered steps.*
- `Question Module` : *asks the user a question and saves their answer for reference later in the experiment (for example: the hypothesis).*
- `Lab Report Module` : *displays the user's recorded data with before-and-after comparisons.*
- `Photo Module` : *gives the user instructions to take a photo of their experiment in current condition, and saves it for reference later in the experiment.*
- `Data Entry Module` : *gives the user instructions to populate a preformatted table with data they collect, and saves it for reference later in the experiment.*
- `Diagram Module` : *gives the user instructions to draw a diagram, and saves their drawing for reference later in the experiment.*