

CSE 440 Fall 2013

Paper Prototype, Testing, and Refinement



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Problem and Solution Overview

Teaching a new class or student is often daunting and difficult. Oftentimes teaching styles and learning methods do not sync and for many students this becomes a major barrier in the learning process. In any type of learning environment whether it be in sports, academia or extracurricular, there are disconnects between teachers and students. Recognizing that every student is different and learns through different means creates difficulty in designing lesson plans that engage, challenge and develop every type of student. Teachers are faced with the challenge of presenting and applying content to a class that most likely does not learn through one single methodology; this presents teachers with an overwhelming amount of pressure (to teach in a style they are not comfortable with) and a great deal of confusion (how to better reach students who don't learn in a certain way). Instructors often turn to group projects to empower and engage students not only with the content but with each other. This is a tactic used for empowering students and fostering individual learning through the collective effort of different learning styles.

To help resolve the confusion and alleviate stress for teachers trying to reach their students in new ways, TeamTeach specifically focuses on learning through groups and designing a tool that will help instructors analyze their students learning styles (individually and as a whole) and optimize groups depending upon various means. By incorporating different assessments such as the 4MAT learning style, left brain or right brain, and field of studies into our application, TeamTeach will provide a valuable framework for data feedback and ultimately act as a stepping stone for our application's true purpose: dividing classes into optimal groups for learning.

Tasks

Task 1 – Create a new class profile (Easy)

You are a comparative literature professor who is excited to use TeamTeach for your new class. You have just created an account and now you want to create a new class profile. The class name is C Lit 421, and you choose to use the 4Mat assessment to group this class. The survey should have a deadline of 10/12/13. You would want to go back to main page and check if the class profile has been successfully created. You then realize that the due date was too late so you want to modify it so that it's actually due on 10/05/13.

Task 2 – Form a group list from an existing class (Medium)

It's now 10/06/13 and all the surveys for C Lit 412 have been completed, so now you want to create a group list for it. The name for the group list will be "Week 1", and you want your students placed into similar learning style groups. You want 3 students per group. After the group list has been created, you decide that it would be best to have groups based on diversity rather than their similar learning styles. So you want to delete this group list and start over.

Task 3 –Manually change the group members and make a comment (Hard)

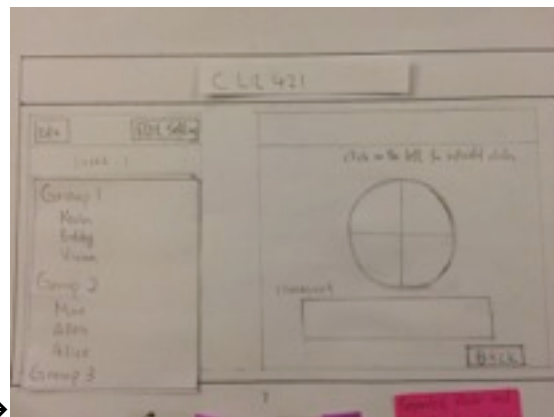
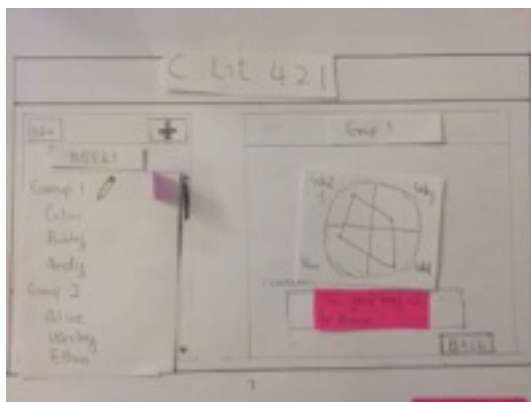
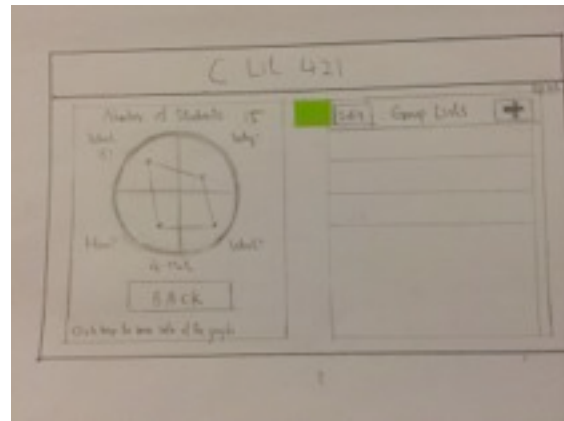
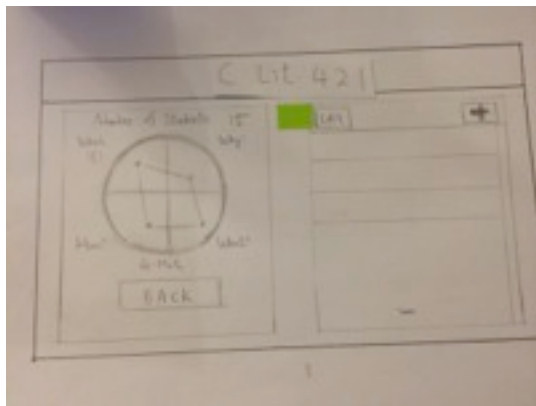
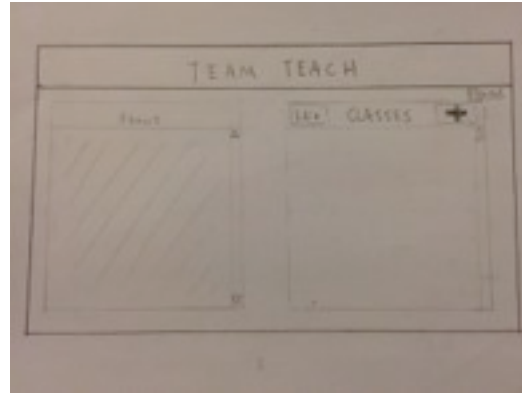
After the new group list comes out, you find that Kevin and Bobby are in the same group. You know that Kevin and Bobby don't get along well in a group so you are going to separate them. You will switch Kevin and Allen from group 2. Then you want to leave a comment for Kevin saying "Separated Kevin and Bobby, they don't get along", and a comment on group 1 saying "This group may not be diverse."

Interface Revision and Sketches

We decided to revise our interface in direct correspondence to the problems we observed in the testing results. We ensured that the features which users seemed satisfied with remain intact.

For the lack of information problem, we simply added several words to solve the issue. We added "CLASSES" on the right box of the main page and "GROUP LISTS" on top of the right box of the class profiles. We believe that by just providing the name given to the functionality of these two sections, users will have a much more intuitive experience while using the app. The user workflow from task to task will be more efficient by adding crucial information. There are other areas that could be enhanced as well simply by providing more information for example in our comments addition.

In regards to functionality, we would first add a sign out button on every single page. A delete button will also be created internally for each class profile and group list. Moreover, inside a group list, we would create an "edit settings" button to allow the users to modify settings like group list names or the number of groups.



Prototype Overview

We basically designed our interactive prototype exactly the same as our paper prototype because we feel that our revised paper prototype is already pretty well structured and contains all the necessary functionality that a user would need. Since TeamTeach

serves only one ultimate purpose: to help the educators divide their students into optimized learning groups, our 3 tasks are related and coherent so that they can be demonstrated in one walkthrough.

Task 1 – Create a new class profile:



The log in page, enter information and press LOG IN



The main page, show the information of TeamTeach and a list of classes (currently empty), click on the + sign to add a class profile.



A screenshot of a web form titled "CREATE CLASS PROFILE" in red text. The form is set against a light blue background with diagonal lines. It contains three input fields: "Class Name:" with the text "C-LIT 421", "Assessment:" with a dropdown menu showing "Email", and "Learner Style Due Date:" with the date "10/10/13". At the bottom of the form are two buttons: "CREATE PROFILE" and "CANCEL". A small "sign out" link is visible in the top right corner of the form area.

Enter the information for the class profile, then click create profile.



A screenshot of a confirmation page titled "C-LIT 421" in red text. The page has a light blue background with diagonal lines. It displays the text "Learner survey at" followed by a blue hyperlink "teamteach.com/survey/D1234". Below this, it says "0 surveys completed". There is a "Due Date" field showing "10/10/13". At the bottom is a button labeled "Back To Main Page". A small "sign out" link is in the top right corner.

A confirmation page that provides the link to a survey that the students should take, press Back To Main Page.



We see that the class profile for C-LIT 421 has been created.

Task 2 – Form a group list from an existing class

Continuing from task 1, press the C-LIT 421 to access the class profile page.



The class profile page for C-LIT 421, on the left it shows the analysis for the whole class, on the right it shows the group lists (right now it's empty), press + to create a new group list.

sign out

CREATE GROUP

Class Group List:

Learning style balance: ☐ Similar ☐ Diverse

Member per group

CREATE GROUP LIST

CANCEL

Just like creating a class list, creating a group list is the same process. Enter all the fields and press Create Group List.

SIGN: SSG

Week 1

TOP
"Week1"

GROUP1
00110
00000
00110

GROUP2
01101
01100
00110

GROUP3
100
01100
01

GROUP4
011000
01100
01100

"week1"

click on the left for individual data

comment:

1000 10 100 00000 100

Boom! Here you go; a group list has been created. On the left hand side is the groups with the names of the members. On the right hand side is the information for any particular unit that user clicks on the left hand side.

Task 3 –Manually change the group members and make a comment

Continuing from task 2, we click on the edit button on the left section. Then user can start manually modifying the group members. Users can also leave a comment on any particular unit on the right hand side below “comment”.



Then click on the gear wheel on the left section.

A screenshot of a web form titled "MODIFY GROUP" in red text. The form is set against a light blue background with diagonal lines. It contains the following elements: a text input field labeled "Class Group List:" with "Week 1" entered; a "Learning style Balance:" section with two radio buttons, "Similar" (which is selected) and "Diverse"; a "Member per group:" label followed by a text input field containing the number "4"; a "CREATE GROUP LIST" button; and a "CANCEL" button. In the top right corner of the form, there is a small link that says "sign out".

We come into the page just like creating a group list, but now we can modify it (like changing from learner style balance from diver to similar).

We used Dreamweaver to create the interactive prototype. It was useful in creating a simple fixed path version of our application that displays the main tasks and functionalities we want to offer.

We did not leave out anything from our paper prototype because when we designed our paper prototype, we trying to do it as concise and user intuitively driven, resulting in the prototype provided too little information for the users. So everything from our paper prototype is really valuable and nothing should be taken out from it. Therefore, after our modification, we only added functionalities.

Basically our interactive prototype now only supports the above three tasks, which means that many of our functionally uses the Wizard of Oz technique. For example, no matter what the user enters as the class name or assessment type, it will always come out as C-LIT 421 and uses 4mat assessment. The places for creating a group list is also using Wizard of Oz, we will always create a group list named "Week 1" with the same members in each group.