

Users Designing Interfaces: Discovery through a Modified Design Studio

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The First Iteration

- How do you decide which features should be included in the first iteration of a novel product?
 - Which of multiple potential features should you prototype first?
- Ask the users.
 - Modified Design Studio

Modified Design Studio

- Give users a scenario
- Ask them to sketch the interface they would like to use in the scenario
 - 3 successive iterations
 - each iteration is “unique”
 - users don’t know how many designs they’ll create: prevents conserving ideas
 - users work on their own: not participatory design
- Discussion with users

Design Studio (*Lean UX*)

- Team agrees on problem & its constraints
- Individuals sketch 6 solutions
- Group critique
- Individuals refine 1 solution
- Team converges on 1 design

Gothelf, J. (2013). *Lean UX: Applying lean principles to improve user experience*. O'Reilly Media, Inc.

Modified Design Studio and Design Studio

- Similarities:
 - strategies for product team to converge on an initial design
 - strategies revolve around iterative design
- Differences:
 - stage of the design process
 - process of creating iterations
 - resources used

Differences

- Stages of the Design Process
 - MDS: discovery phase, learning about users
 - DS: design phase
- Process of Creating Iterations
 - MDS: users as designers
 - DS: product team as designers
- Resources Used
 - MDS: users
 - DS: product team (Agile Development)

Application: EyeGuide Focus

- EyeGuide Focus
 - concussion-detection product for high school athletics
 - eye-tracking
- Interface to display eye-tracking test results for athletic trainers.
 - What result interfaces should we start paper prototyping with?
 - i.e. How to design first iteration of a novel product?

Application: Participants and Scenario

- Participants
 - 2 high school athletic trainers familiar with the system
- Scenario
 - Athlete had concussion last week. You need to decide whether the athlete still has a concussion by using eye-tracking test results.

Application: Tasks

- Tasks:

- 1. Draw the display you'd like to see in order to make this decision.
- 2. Draw the display differently. "Try to make it unique as you can, but you may have as many similarities or differences with your first screen as you like."
- 3. Draw the display differently. "Try to make it unique as you can, but you may have as many similarities or differences with your previous screens as you like."

Application: Results

Athlete Name: _____

Baseline - Date _____

Post injury 1 _____

2 _____

3 _____

4 _____

5 _____

VIDEO with Baseline and Post injury test to run together

Baseline

Post injury — Day1 Day3 Day5 Day7 etc etc

Application: Results

Atletes Name
ID#
Date of injury:
Previous injuries:

Symptom currently experiencing
Headache
nausea
Sensativity to light
etc

VIDEO

graph

Baseline

Day 1 Day 2 Day 3 Day 4 Day 5 Day 6 Day 7 Day 8 Day 9 Day 10
Post injury - everyday

Application: Results

Athlete name
ID#:
DOB:
Date of ~~the~~ injury
Previous concussions y/n - if yes ^{Date} ~~when~~:

VIDEO link
Baseline
Post 1
Post 2
Post 3
etc.

Page 1

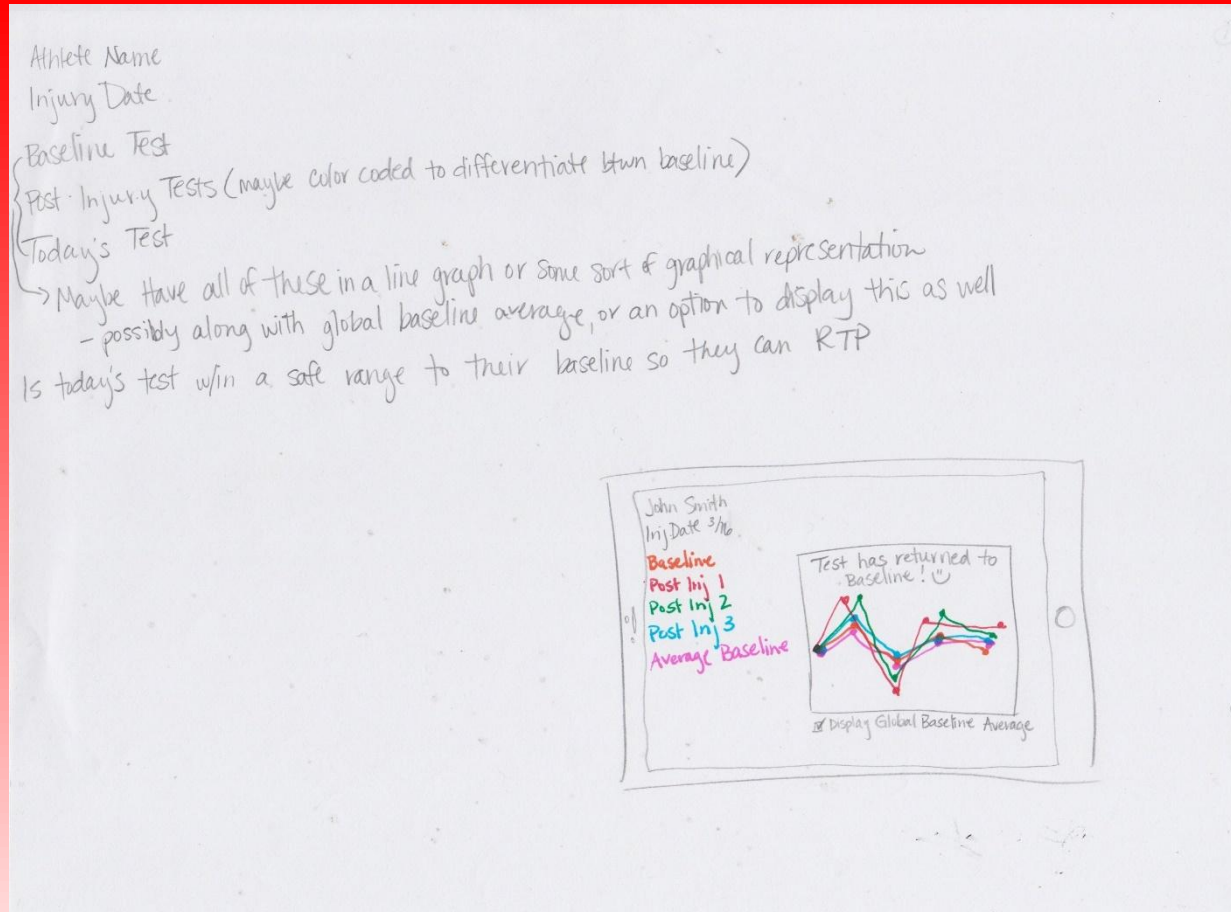
Page 2

Symptoms

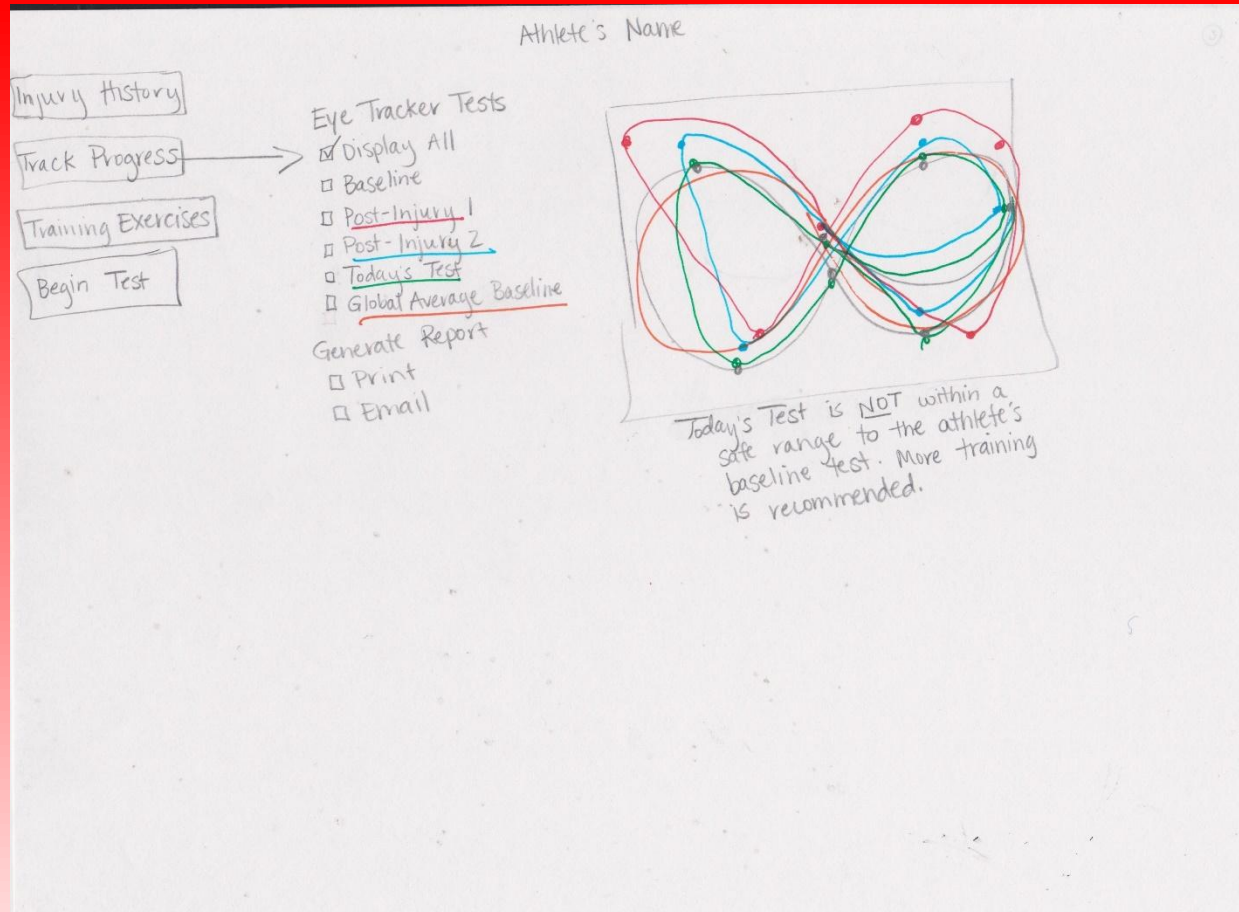
Baseline
Post injury 1
Post injury 2
Post injury 3
Post Day 1
Post Day 3

VIDEO with Baseline and ~~etc~~ up to 2 Post injury test

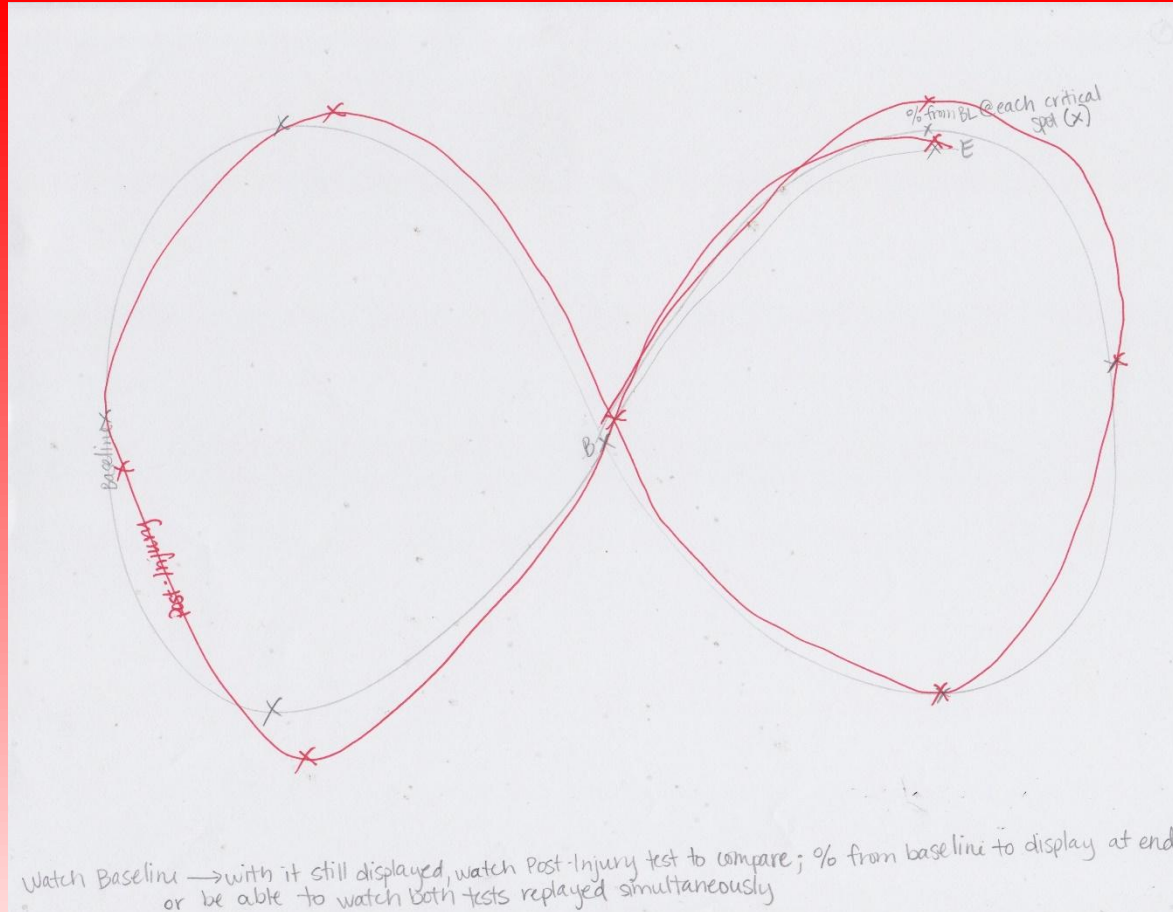
Application: Results



Application: Results



Application: Results



What We Learned with MDS

- What to include in the first design iteration:
 - Graphical representation of eye-tracking test
 - Ability to compare tests to baseline
 - Ability to select tests to compare
 - Ability to rename tests
 - Ability to input additional information such as concussion-related symptoms and date of injury

Thank You!

- Questions?

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MDS Scenario

Scenario: Let's imagine you're working with an athlete who has sustained a diagnosed concussion. They've been healing for several weeks, and they've just done the eye tracking test with you and you need to decide, based on what's displayed in front of you, whether to recommend the player continue in the rehab stage OR go to their physician to be cleared to return to play.

All the eye tracker tests you've done with the athlete are stored in the system including a pre-injury baseline. Additionally, the global baseline data, the averages for all athletes, is also stored in the system.

MDS Task 1

Task 1: You have a blank piece of paper in front of you. This represents the display of the iPad after you've requested data for a particular student. You're going to make your recommendation based on what's on this display. Can you sketch out or label the different things you'd like to include on this screen? Let us know when you're done.

Can you look over it one more time and make sure that everything is labeled?

[take design 1, give blank sheet and instructions #2]

MDS Tasks 2 and 3

Task 2: Thank you. We'll give you a chance to talk about your design in a few minutes. Here's another sheet of paper. This time, I want you to sketch or label this screen in a different way. Try to make it as unique as you can, but you may have as many similarities or differences with your first screen as you'd like. Let us know when you're done.

Can you look over it one more time and make sure that everything is labeled?

[take design 2, give blank sheet and instructions #3]

Task 3: Thank you. Here's a final sheet of paper. Again, I want you to sketch or label this screen in a different way. Try to make it as unique as you can, but you may have as many similarities or differences with your first two screens as you'd like. Let us know when you're done.