Class.ly:
Helping Students Collaborate

By: Parker Klein & Mitch Masia

The Problem

Solutions(?)

There has to be a better way....

- Originating Requirements
  - Automatically pull enrollment information
  - Automatically create chatrooms
  - Allow meetup scheduling
  - Allow custom group creation
  - Allow opt-out

Enter Class.ly

- Write-Once, Run-Anywhere
- Integrate with Vanderbilt YES
- Instant-Messaging Interface
- Meetup Scheduler
- Custom Group Creation
- Opt-Out

Homework Chat

Mitch
asdfsadfafdafasdfasd adsf fd

Parker
Hey Mitch

Mitch
Hello Parker

Parker
Can anyone help with this homework?

Message   Send

Chat   Meetups
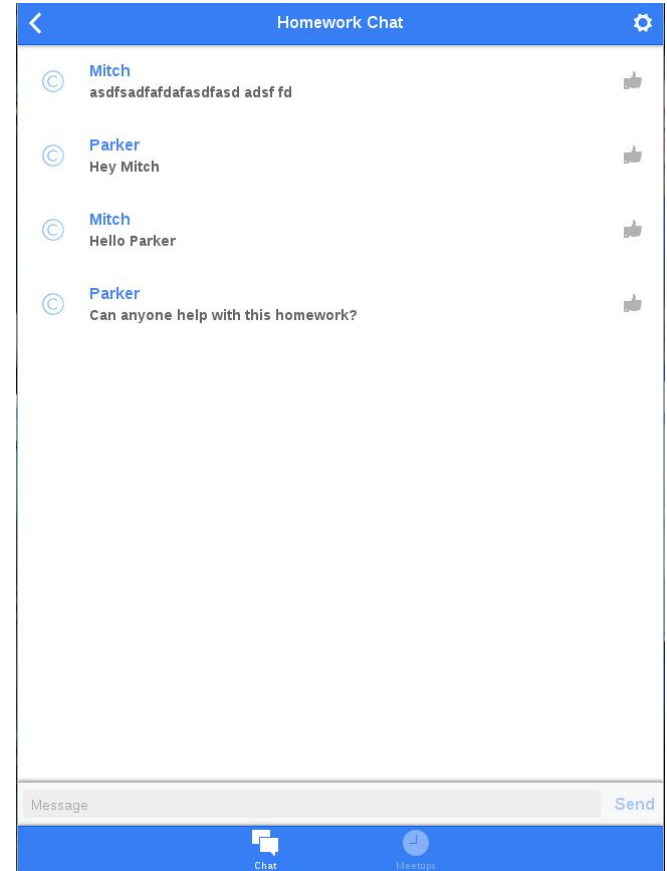
Testing - Overview

- Introduction
- Introduction Survey
- Time-on-Task Comparison
  - Blackboard
  - Piazza
  - Class.ly
- Learning Percentage Determination
- Exit Survey

http://livelifewellconsulting.com/wp-content/uploads/2015/09/Time.jpg

Testing - Participants

- 10 participants, 8 male
- Average age of 21.25 years
- Seniors at Vanderbilt University
- "High" Mobile & Desktop Operating Environments

Combined Alternative Experience Level (Likert Scale)

Experience on Blackboard & Piazza

Distribution of Academic Majors
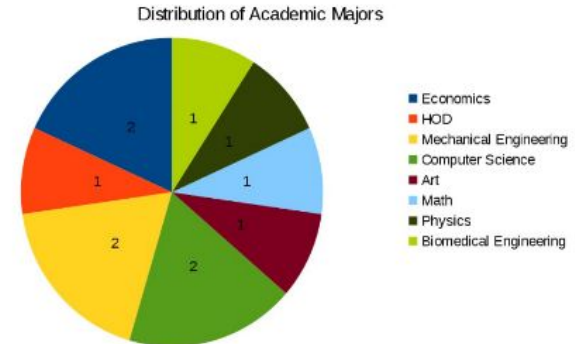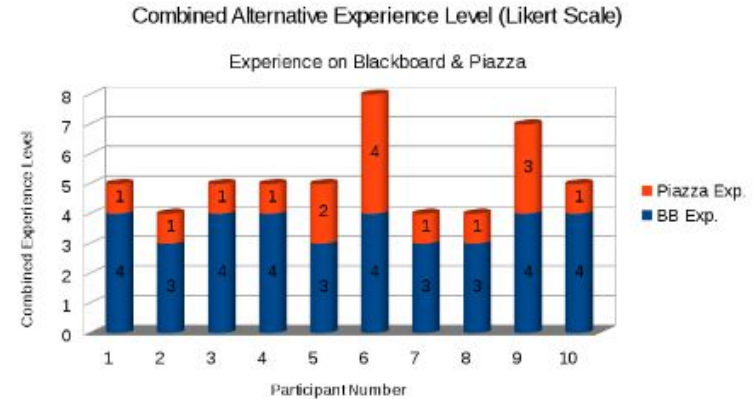
Testing - Results

Hypothesis: Average Time-on-Task for sending a message to an entire class on Class.ly is shorter than for Blackboard (and Piazza).

H_{01}: ATMC - ATMB >= 0 (using Student's t test) $\longrightarrow$ p = 0.00468

H_{02}: ATMC - ATMP >= 0 (using Student's t test) $\longrightarrow$ p = 0.00420

Results:

ATMB: μ = 44.062s, σ = 11.765s
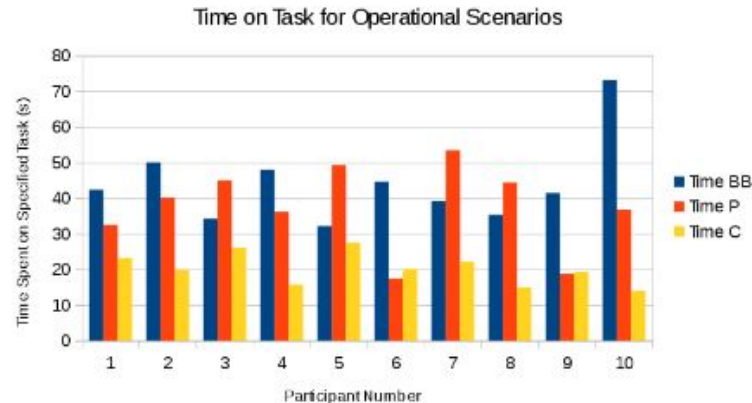
ATMP: μ = 37.401s, σ = 11.947s

ATMC: μ = 20.274s, σ = 4.558s

Time on Task for Operational Scenarios

Testing - Results

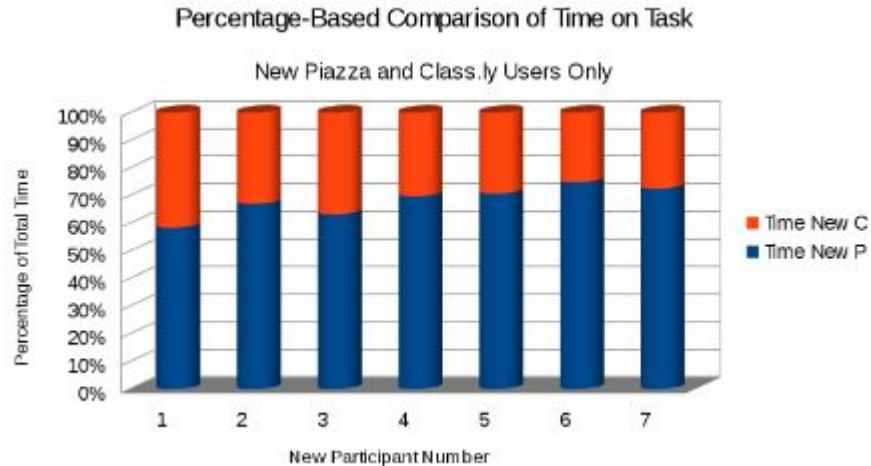**Hypothesis:** Average Time-on-Task for sending a message to an entire class is shorter for new users (A) on Class.ly than on Piazza.

H_{03}: ATMC by A - ATMP by A >= 0 (using Student's t test) $\longrightarrow$ p = 0.16995

Results:

ATMP: μ = 45.957s, σ = 7.379s

ATMC: μ = 20.31s, σ = 4.363s

Percentage-Based Comparison of Time on Task

New Piazza and Class.ly Users Only

Testing - Results

Hypothesis: Users will achieve less than a 50% learning percentage in creating a meetup on Class.ly.

H_{04}: $t_1 / t_2 >= 0.5$

$$z = \frac{p - p_{exp}}{se(p)}$$

where p is the observed proportion

where p_{exp} is the null, expected proportion

where $se(p)$ is the standard error of p
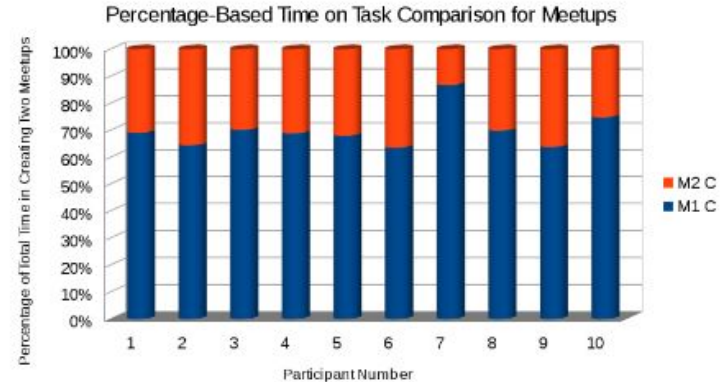
$$se(p) = \sqrt{\frac{p_{exp}(1 - p_{exp})}{n}}$$

⟶ p = 0.07140

Results:

ATM1: μ = 64.206s, σ = 32.809s   (149.91s)

ATM2: μ = 25.052s, σ = 4.011s

ATM2: μ = 18.21s, σ = 6.118s

Percentage-Based Time on Task Comparison for Meetups

Testing - Other Results

- 80% of testers would use a prod version of Class.ly
  - Would not use because of low adoption
  - Would not use because of annoyance
- 100% of testers say Class.ly intuitiveness > BB intuitiveness
- 100% of testers say Class.ly intuitiveness > P intuitiveness
- Most important feature: meetup scheduler
- Most desired feature: meetup calendar integrations

Discussion

- Statistically significant speed increase over BB
  - Great for on-the-go students
  - Indicate high intuitiveness
  - Comparatively limited feature-set
    - Amdahl's Law
- Statistically insignificant intuitiveness calculations v. Piazza
- Learning percentage is low, but our users does not achieve the desired threshold (50%)

Discussion

- Standard Deviations Time-on-Task for Messaging
  - $\sigma_{BB} = 2.58$
  - $\sigma_P = 2.62$
  - $\sigma_C = 1$
- Correctly profiled psycho-graphic
- Need help building a mental model

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