

User Experience Case Study



By Tyler Kiser
7/27/21

Agenda

1. Overview of Experiment
2. Client Demographics and Interaction
3. Defining Success
4. Measurement
5. Experiment Summary
6. Experiment Improvement Recommendations

Overview of Experiment

Customer Journey Hypothesis:

- A more modern UI and in-context prompts would make clients feel more comfortable with our digital process and lead to higher completion rates.

Experiment Overview

- A control group was exposed to the current state experience while the test group saw a newly redesigned experience with **improved UI, navigation, and in-line help**.
- Both the test and control experiences have the same number of process steps. **5 steps in total**

Experiment Timeframe

- 3/15/2017 – 4/30/2017
- Total duration 47 days (1.5 months)

Test and Control Groups (72% of all Vanguard Clients)

- Test: 26,968 clients (53.4%)
- Control: 23,532 clients (46.6%)

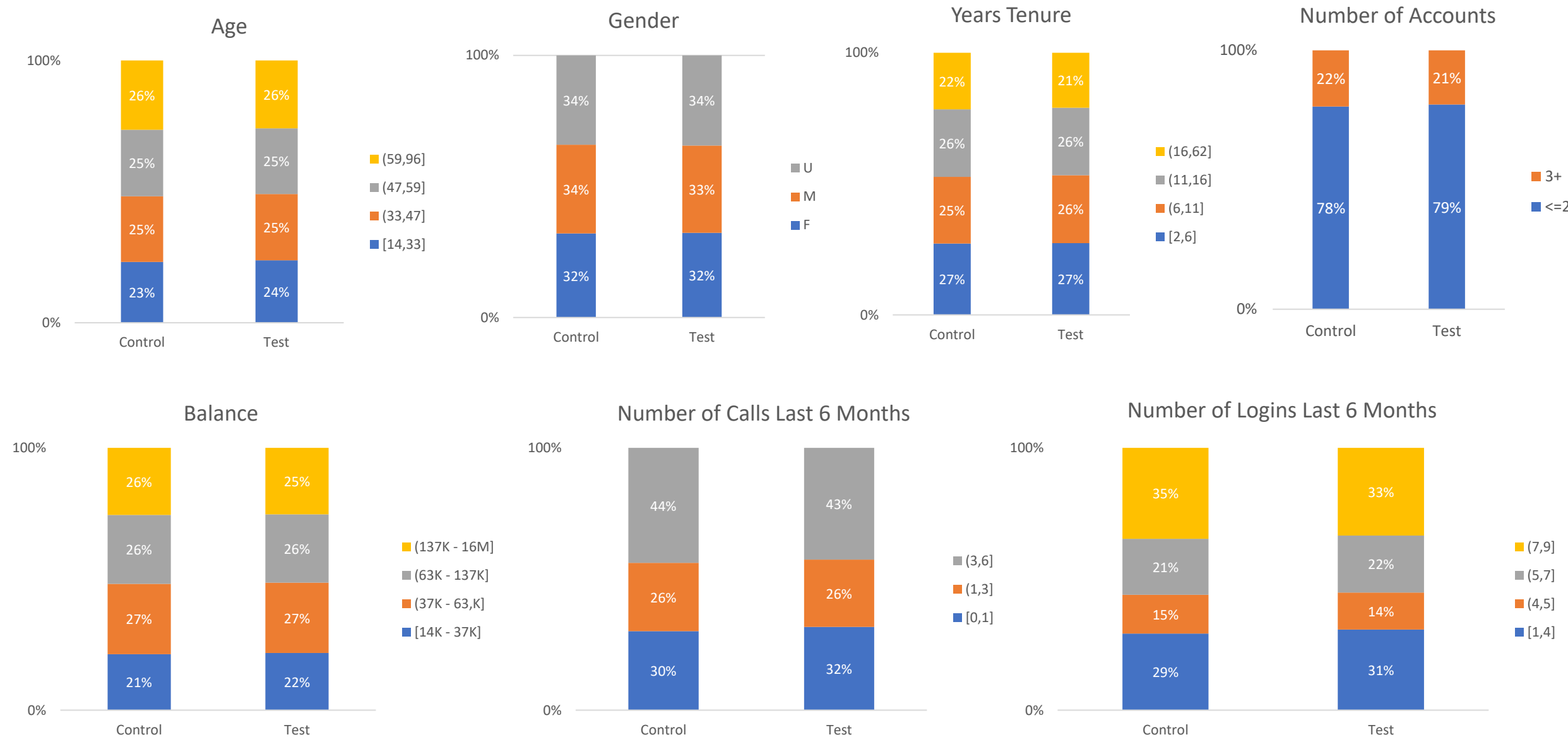
20,109 clients that interact with this process were not part of either the test or control group. This represents 28% of all Vanguard clients.



Client Demographics



Client Demographics – Control VS Test – Distribution of Clients

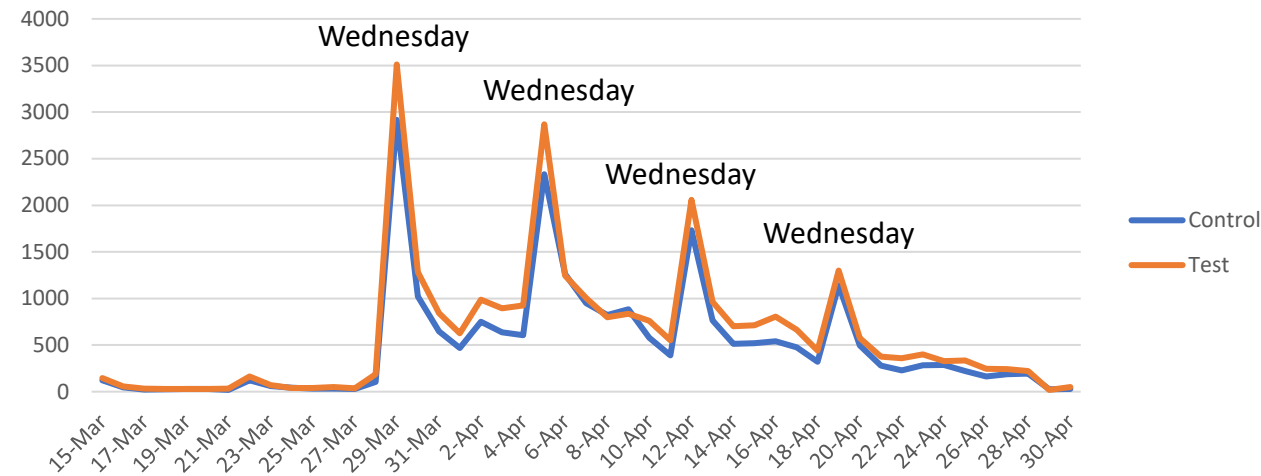


How and when do clients
interact with this process?

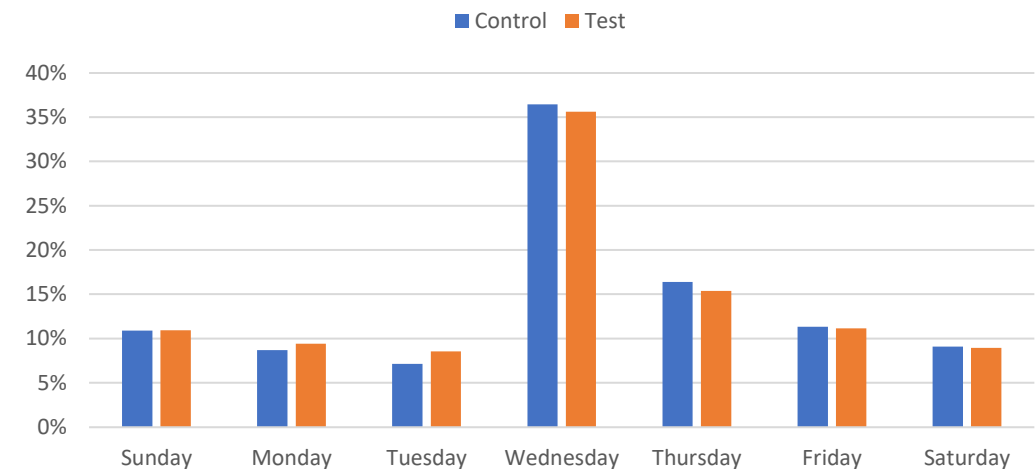


How and when do clients interact with this process?

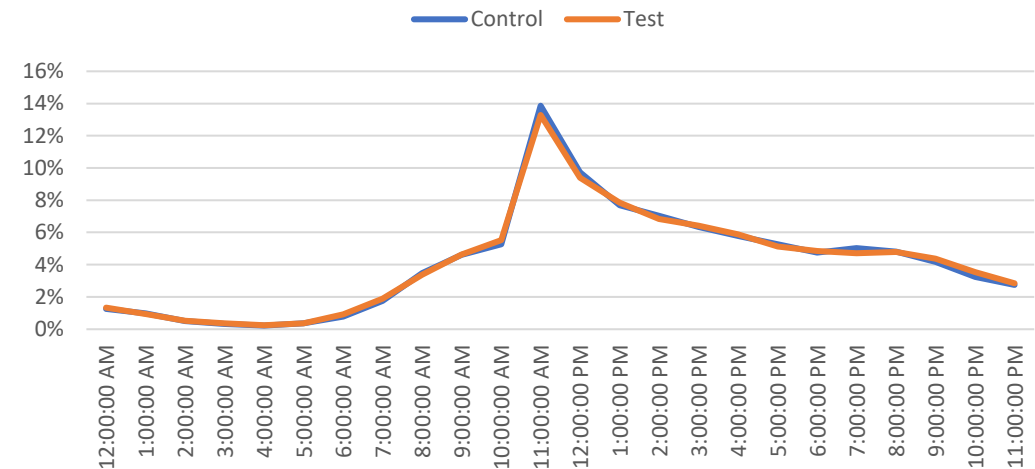
Unique Visits by Date



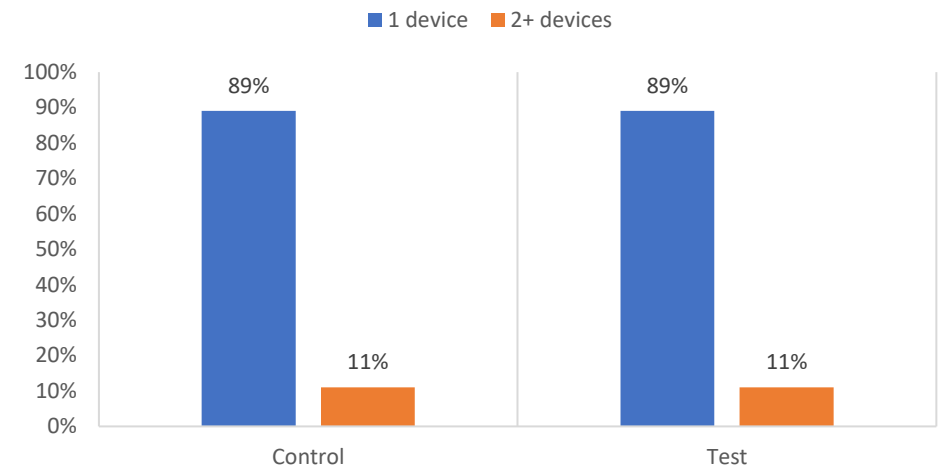
Unique Visits by Day of Week



Distribution of Visits by Time of Day



Distribution of Clients by Number of Devices



Defining “Success”



Defining “Success”

Completion

- Improve distribution of clients that complete all steps
- Improve distribution of clients that complete confirmation
- Decrease distribution of clients that skip steps

Simplification

- Decrease time to complete all steps
- Minimize number of client visits
- Decrease number of total steps within a visit
- Decrease number of clients that duplicate steps

Assistance

- Decrease number of clients that need on-call assistance from Vanguard

Measuring Completion

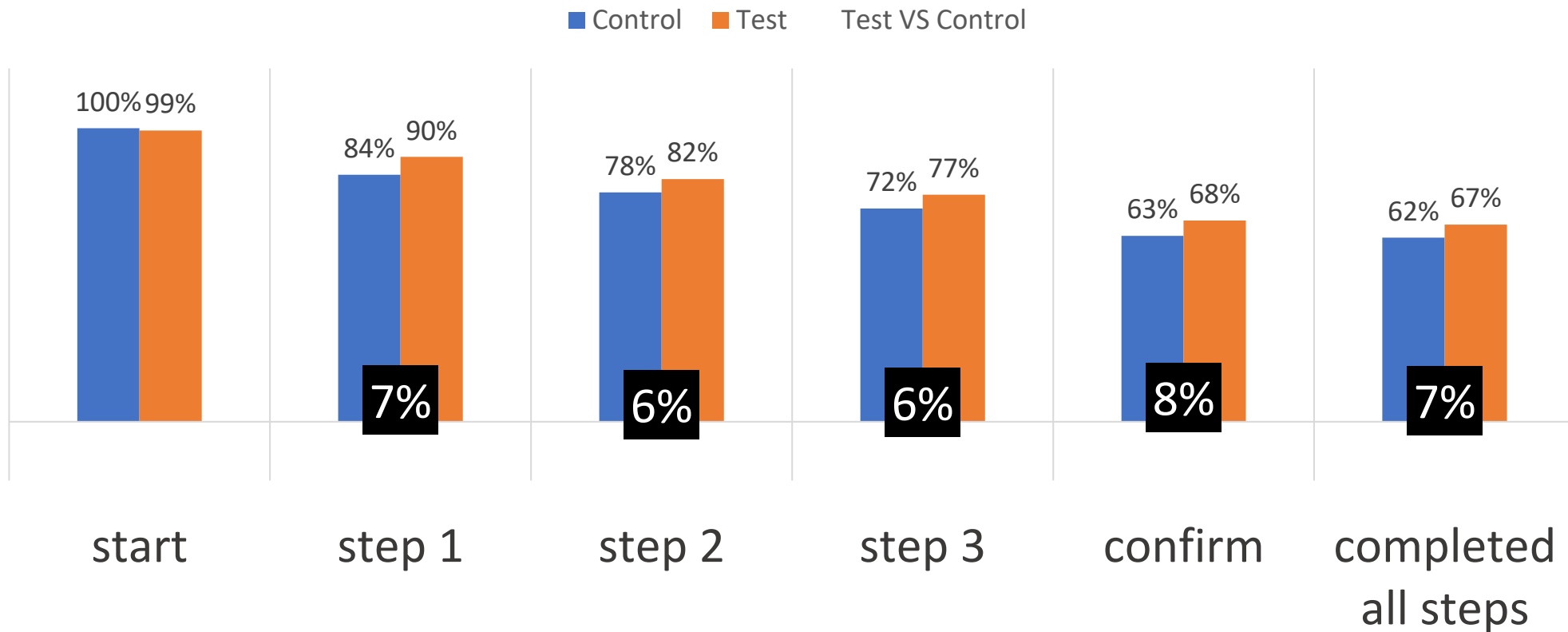


Measuring Completion

Goals

- Improve distribution of clients that complete all steps
- Improve distribution of clients that complete confirmation
- Decrease distribution of clients that skip steps

Distribution of Clients that Completed Each Step



Measuring Simplification

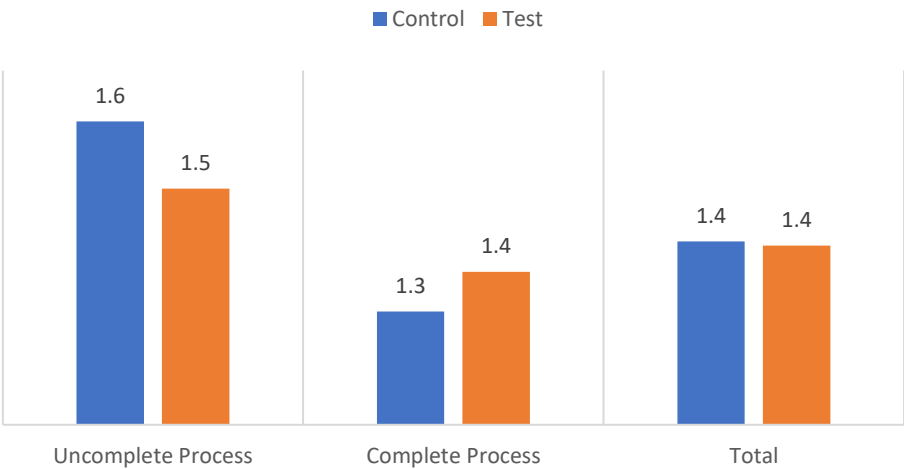


Measuring Simplification

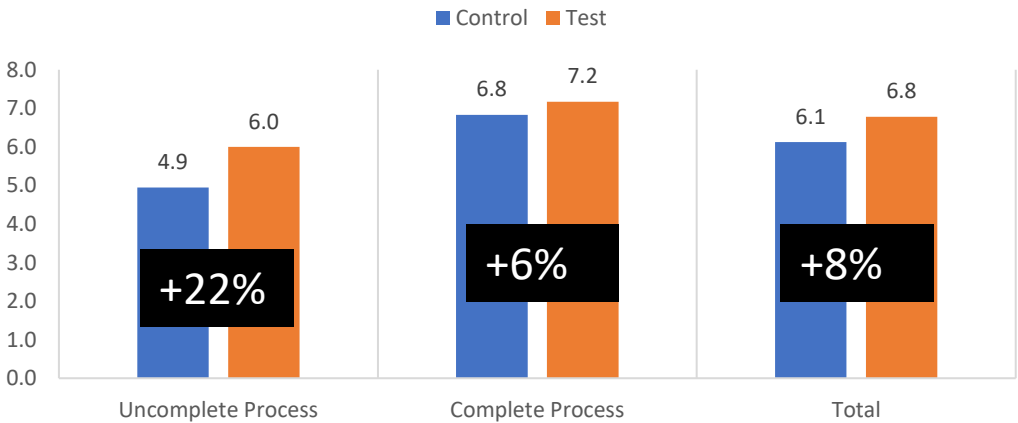
Goals

- Decrease time to complete all steps
- Decrease number of client visits
- Decrease number of total steps within a visit
- Decrease number of duplicated steps

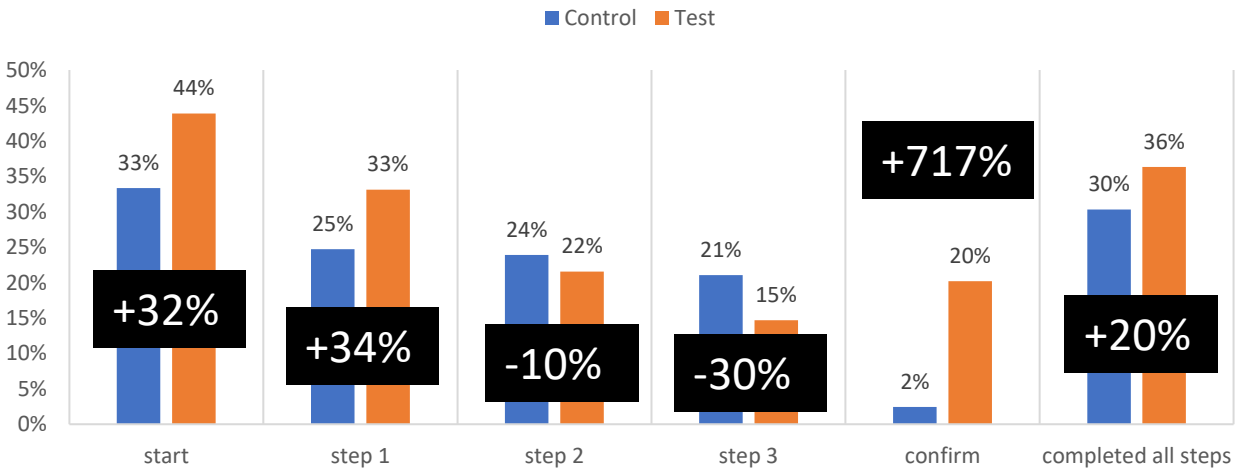
Average Number of Visits Per Client (47 days)



Average Number of Total Steps Per Client (including duplicated steps)



Distribution of Clients that Duplicated a Step



Client Journey Examples

Perfect Process

| client_id | visitor_id | visit_id | process_step | date_time |
|-----------|-----------------------|------------------------------|--------------|---------------------|
| 1195 | 766842522_69992551638 | 393817425_39015278493_996341 | start | 2017-04-05 20:15:26 |
| 1195 | 766842522_69992551638 | 393817425_39015278493_996341 | step_1 | 2017-04-05 20:15:59 |
| 1195 | 766842522_69992551638 | 393817425_39015278493_996341 | step_2 | 2017-04-05 20:17:37 |
| 1195 | 766842522_69992551638 | 393817425_39015278493_996341 | step_3 | 2017-04-05 20:18:08 |
| 1195 | 766842522_69992551638 | 393817425_39015278493_996341 | confirm | 2017-04-05 20:19:31 |

Single Step

| client_id | visitor_id | visit_id | process_step | date_time |
|-----------|-----------------------|------------------------------|--------------|---------------------|
| 1368 | 366307863_19014662045 | 784065271_45379483290_309335 | start | 2017-04-09 21:58:28 |

Duplicate Steps

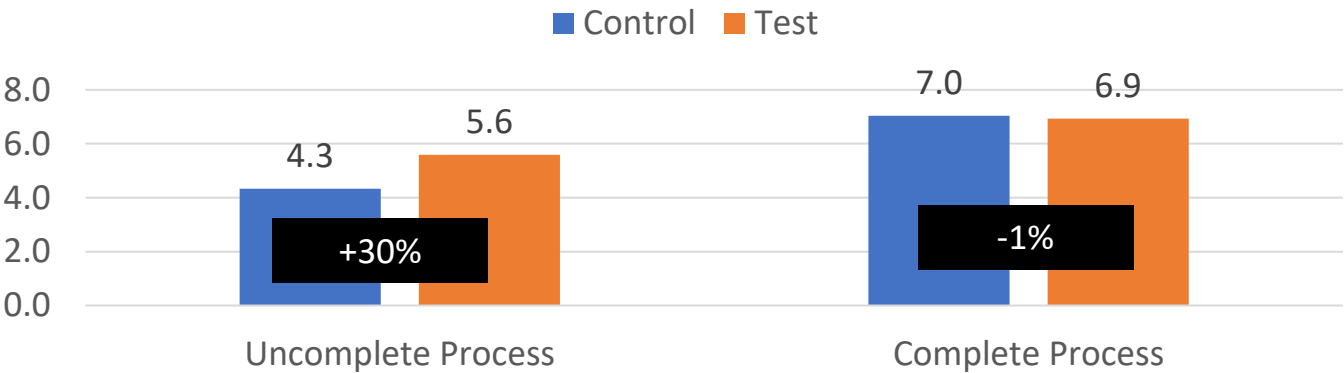
| client_id | visitor_id | visit_id | process_step | date_time |
|-----------|-----------------------|-----------------------------|--------------|---------------------|
| 13009 | 360435735_44466390795 | 377986493_6391607481_598681 | start | 2017-03-29 12:03:57 |
| 13009 | 360435735_44466390795 | 377986493_6391607481_598681 | step_1 | 2017-03-29 12:04:39 |
| 13009 | 360435735_44466390795 | 377986493_6391607481_598681 | step_2 | 2017-03-29 12:06:30 |
| 13009 | 360435735_44466390795 | 377986493_6391607481_598681 | step_3 | 2017-03-29 12:07:06 |
| 13009 | 360435735_44466390795 | 377986493_6391607481_598681 | step_2 | 2017-03-29 12:07:56 |
| 13009 | 360435735_44466390795 | 377986493_6391607481_598681 | step_3 | 2017-03-29 12:07:59 |
| 13009 | 360435735_44466390795 | 377986493_6391607481_598681 | confirm | 2017-03-29 12:10:34 |
| 13009 | 360435735_44466390795 | 377986493_6391607481_598681 | step_3 | 2017-03-29 12:10:34 |

Multi-day Duplicate StepsD

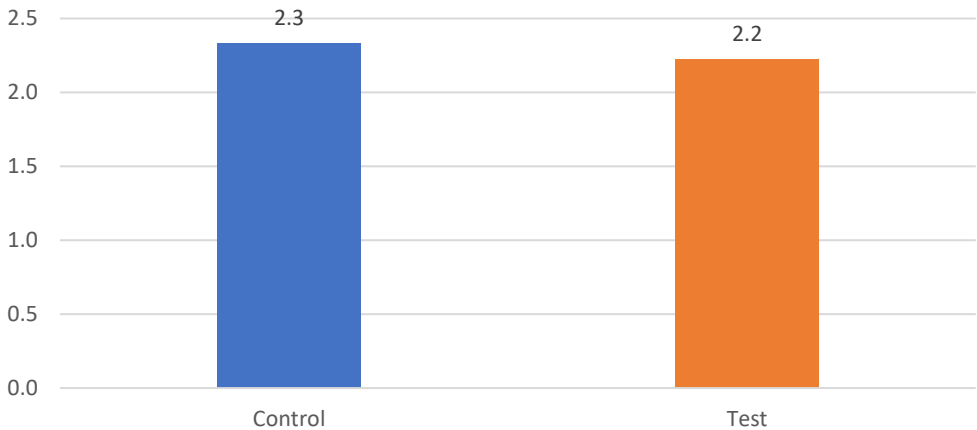
| client_id | visitor_id | visit_id | process_step | date_time |
|-----------|-----------------------|------------------------------|--------------|---------------------|
| 16135 | 973833159_30067220181 | 725277869_39816191426_221546 | start | 2017-04-09 20:20:30 |
| 16135 | 973833159_30067220181 | 252156179_52504721538_22420 | start | 2017-04-10 19:23:36 |
| 16135 | 973833159_30067220181 | 252156179_52504721538_22420 | start | 2017-04-10 19:27:43 |
| 16135 | 973833159_30067220181 | 252156179_52504721538_22420 | step_1 | 2017-04-10 19:27:49 |
| 16135 | 375602926_50119717068 | 134174297_19985183355_947935 | start | 2017-04-11 13:30:30 |
| 16135 | 375602926_50119717068 | 134174297_19985183355_947935 | step_1 | 2017-04-11 13:30:49 |
| 16135 | 375602926_50119717068 | 134174297_19985183355_947935 | start | 2017-04-11 13:40:08 |
| 16135 | 375602926_50119717068 | 134174297_19985183355_947935 | step_1 | 2017-04-11 13:40:14 |
| 16135 | 375602926_50119717068 | 134174297_19985183355_947935 | step_2 | 2017-04-11 13:40:52 |
| 16135 | 375602926_50119717068 | 134174297_19985183355_947935 | step_3 | 2017-04-11 13:41:30 |
| 16135 | 375602926_50119717068 | 134174297_19985183355_947935 | confirm | 2017-04-11 13:43:18 |
| 16135 | 973833159_30067220181 | 739783204_67389693968_203186 | start | 2017-04-11 21:18:44 |
| 16135 | 973833159_30067220181 | 739783204_67389693968_203186 | step_1 | 2017-04-11 21:18:54 |
| 16135 | 973833159_30067220181 | 603799110_74928570629_78901 | start | 2017-04-12 18:44:51 |
| 16135 | 973833159_30067220181 | 603799110_74928570629_78901 | step_1 | 2017-04-12 18:44:54 |

Average Client Visit Time

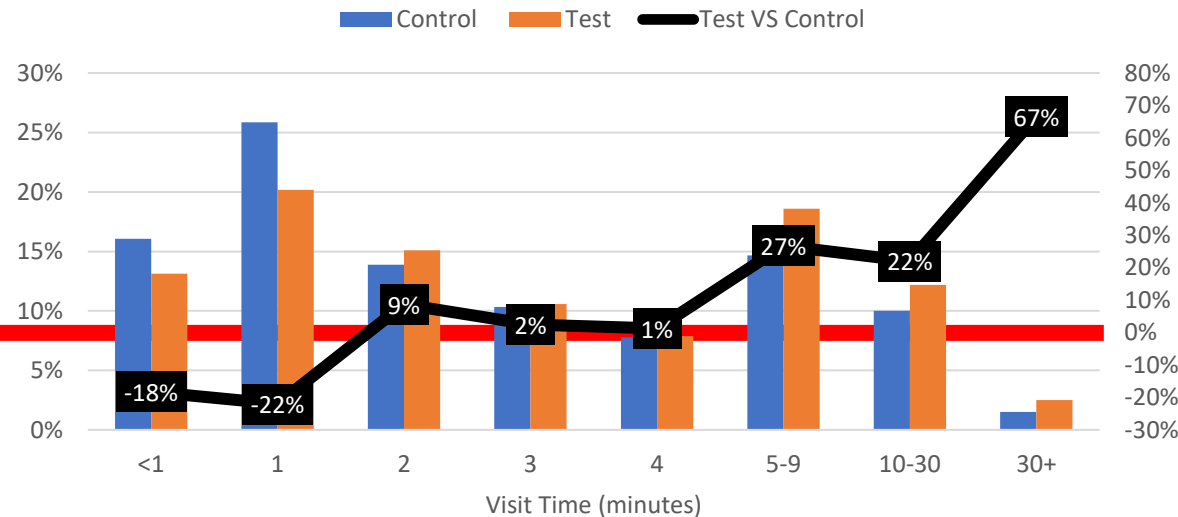
Average Visit Time
(Clients with only 1 visit &
at least 2 events per visit)



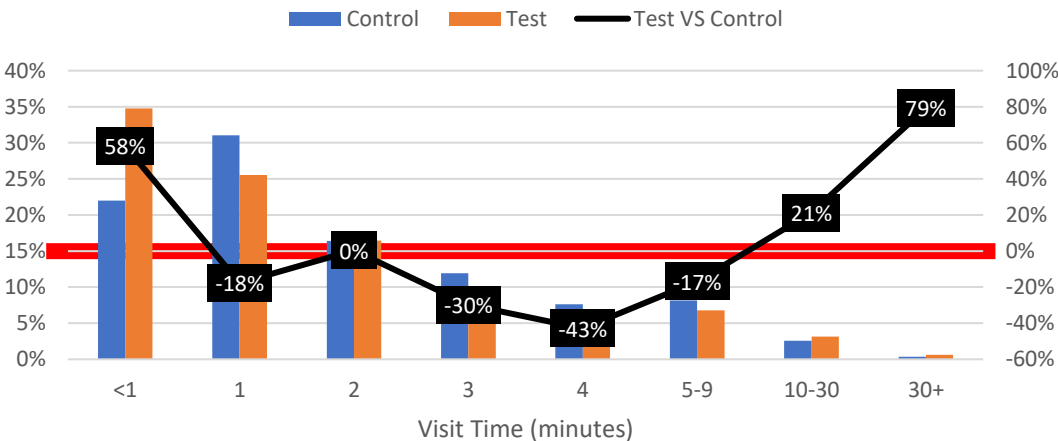
Uncompleted Average Time With Visits With
Duplicates Removed



Visit Time Distribution for Uncompleted Visits



Visit Time Distribution for Uncompleted Visits
Visits with Duplicates Removed



Measuring Assistance



Experiment Summary

Experiment Improvement Recommendations



Experiment Improvement

Address Potential Test Issue

- Why there were hardly any visits in the beginning of the test

Address Potential Data Integrity Issues (all non-material but should be cleaned up)

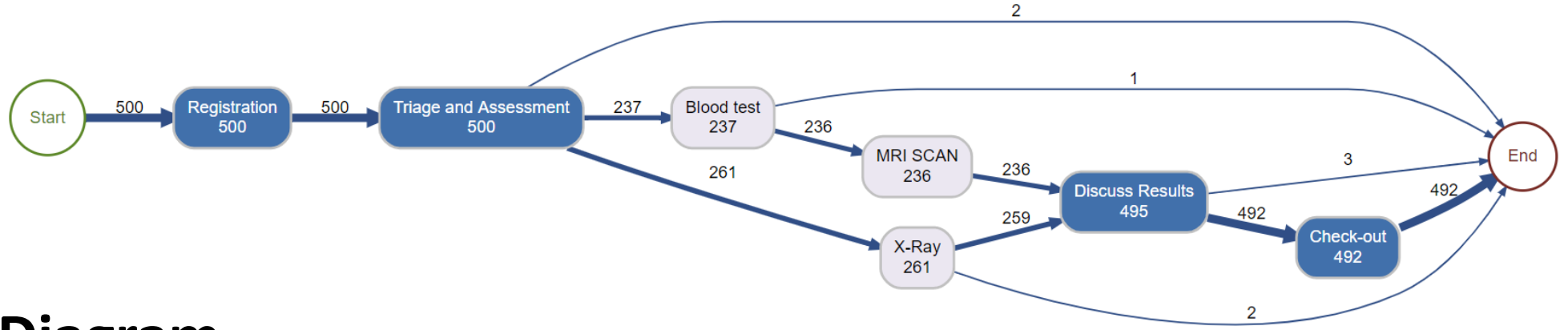
- Why visit times are greater than 30 minutes
- Duplicate timestamps with identical times for different steps
- Address confirms that are missing steps
- Different Clients that have the same visit ID (example 559377190_27285245823_911865)
- Why some visits have 2 client IDs

Improve Data Collection

- Timestamps for both start and end of each step
- Data for if a client contacts Vanguard for help during the visit. Perhaps a button they click to have someone call them, then this can be included in the database.
- Data collection on what is revised for duplicated steps, which could indicate why the step is duplicated
- Data on user activity for each step which could indicate why some clients are spending excessive time on the process

Other Analysis Ideas

Process Map



Precedence Diagram

