

Retail My Place Usability Test Final Report

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April 18, 2007

EXECUTIVE SUMMARY

A redesign has been proposed for the Retail Bank My Place page. Formal Usability testing was performed along with statistical analysis in order to determine whether users in the target audience support the redesign and which page performed better. Measures included time on task, success rate, SUS scores, and user preference for each page.

KEY FINDINGS

- There is a significant difference between the current page and both of the redesigned pages. There is not a significant difference between the redesigned pages themselves.
- User preference, success rate, and SUS scores *strongly favor* Redesign B

KEY RECOMMENDATIONS

- Move forward with plans for Redesign B
- Words to Bank By – Determine the purpose of WTBB and update frequency. There was concern that the page would become stale if it is only updated once a week.
- My Place News – There was concern over what would happen to My Place News, which was updated daily and perceived as more important than WTBB.
- Link directly to the Guide Online from the redesigned page, it's used frequently enough that this would be helpful.

METHODOLOGY

RECRUITMENT

Recruitment was performed by the Retail Banking Communications Team. Participants were selected based on job function and target audience for the Retail Bank My Place page.

Initial testing in the WaMu Center Usability Lab included 3 Front Office and 6 Back Office participants. Three of the Back Office participants were thrown out as they were too far removed from the Financial Center. Three Back Office participants were kept as they had spent a significant amount of time in the FC. Nine additional Front Office participants were then tested at an FC in Kitsap County.

There is a significant difference between the Front Office and Back Office scores, though the analysis was based on only a portion of randomly selected scores from the Front Office since there were not as many Back Office participants as Front Office.

FORMAL METHODOLOGY

Hypothesis

The redesigned pages (B and C) will have faster average completion rate than the current page (A).

$$H_0 : \mu_A = \mu_B = \mu_C$$

$$H_1 : \mu_B < \mu_A$$

$$H_2 : \mu_C < \mu_A$$

Independent Variable

- Page Design: Current (A), Redesign 2 (B), Redesign 3 (C), specifically the number and placement of links and the addition of Words to Bank By – See Appendix 2 for screenshots of each page

Dependent Variable

- Time (in seconds) for task completion
- Success rate for each task
- System Usability Scale scores for each page
- Subjective preference for each page

Moderator Variable

- Location: FC or Corporate Back Office

Controls

- The same three tasks were performed for each page, though the order of the tasks was randomized.
- Participants each tested the current page (A) as well as each of the redesigned pages (B and C). The order of the pages was counterbalanced to eliminate an ordering effect.

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- Controlled lab testing atmosphere for all testing; since we tested in two locations, P1-P6 were in the WaMu Center Usability Lab and P7-P15 were in an FC Manager's office, away from the teller lines.
 - The same facilitator (Josh LaMar) and timer (Kathleen Hackney) were present for each participant.

TASKS

The tasks below were randomized for each page.

- Task 1 – Locate the Guide Online – There is a direct link on Page A; Pages B and C do not have a direct link-participants had to click on either Operations or Manuals and the link was on the following page.
- Task 2 – Locate FC Web – There was a direct link to FC Web from pages A, B, and C.
- Task 3 – Find general Small Business Credit Card information – This information was two levels down from each page. Participants had to click on "Small Business Banking" on page A and either "Small Business" or "Credit Cards" on pages B and C.

FOLLOW-UP QUESTIONS

Following the tasks above, participants were asked the following questions:

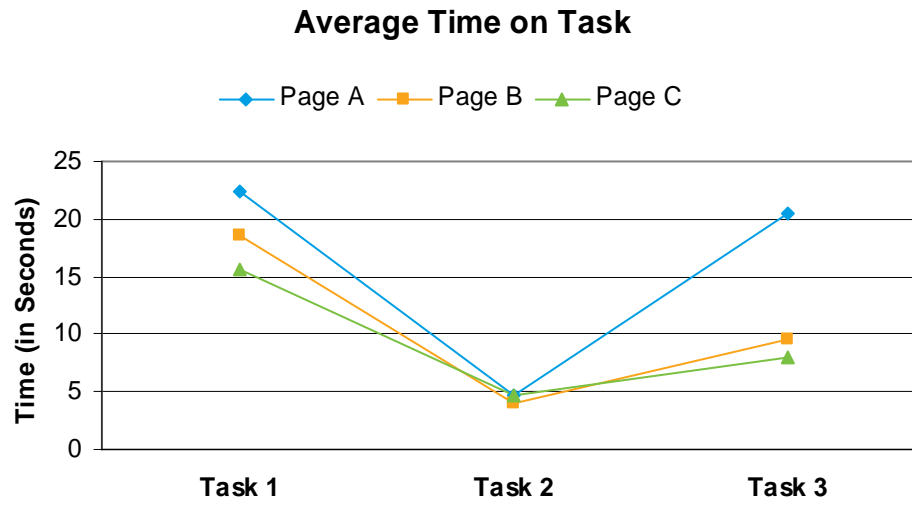
1. Do you prefer the redesigned page to the current page? 1-5 scale, 1 is prefer current page, 5 is prefer redesigned page
2. Do you find it helpful to have WTBB on My Place? 1-5 scale, 1-no, definitely not, 5-yes, definitely

RESULTS

Results below are grouped by measurement. Where applicable, statistically significant findings are called out but only high level. See Appendix 3 for full statistical analyses.

OBJECTIVE MEASURES

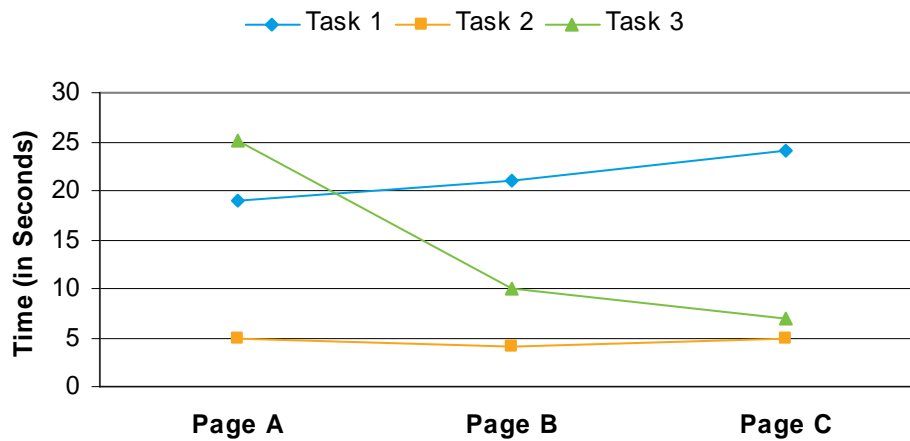
Time on Task



- Task 1 (Guide Online) had the longest average time on the current page (A); Page B and C had faster average times
- Task 2 (FC Web) had little variation at all as there was a direct link on each page
- Task 3 (Small Business Credit Card) - There is a significant difference between Page A and B or C (See Appendix 3.1)

When looking at the interaction of tasks by Page, we obtain the following graph:

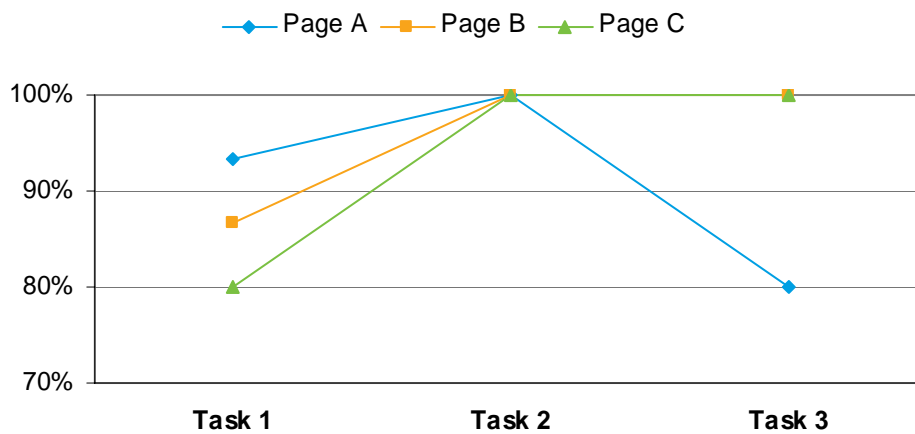
Task Interaction



- Task 1 (Guide Online) took more time on Pages B and C because there was not a direct link to the Guide Online on pages B and C, it was one level down
- Task 2 (FC Web) was about the same for each page, though slightly faster on Page B
- Task 3 (Small Business Credit Card) – There is a significant difference between Page A and Pages B and C (See Appendix 3.2)

Task Success Rate

Task Success Rate



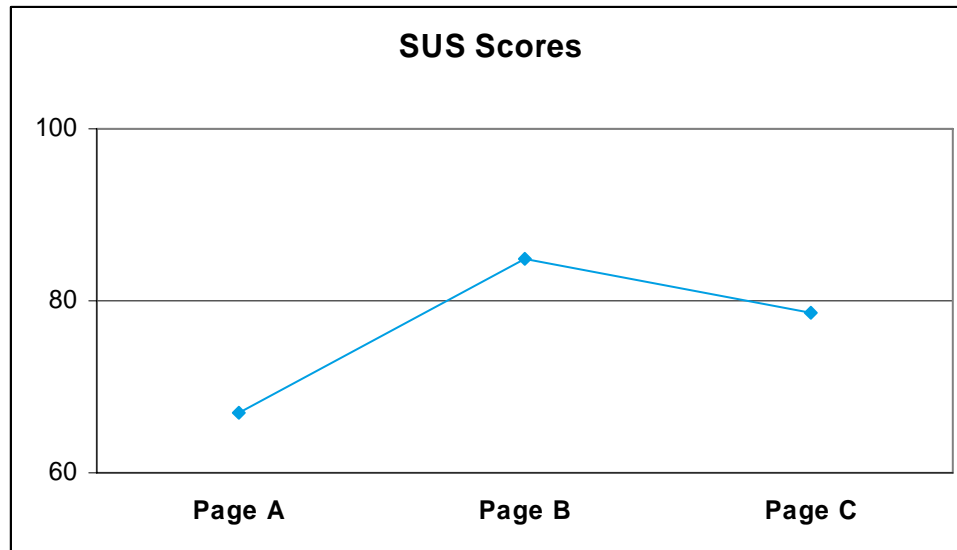
- Page B had the highest overall success rate
- Task 1 had the highest success rate on Page A, this is likely because there is a direct link to the Guide Online on the current page, but not on the redesigned pages
- Task 2 had a 100% success rate for each page-there was a direct link to FC Web from all pages
- Task 3 had a higher success rate on the redesigned pages than the current page

System Usability Scale

The System Usability Scale (SUS) was developed by British researcher John Brooke. It is an objective usability assessment questionnaire which asks participants to rate their agreement with a statement on a 1 to 5 scale (1 being “Strongly Disagree” and 5 being “Strongly Agree”). The questionnaire is then scored; responses range from 0-100.

For more information on the SUS, please contact Josh LaMar at joshua.lamar@wamu.net.

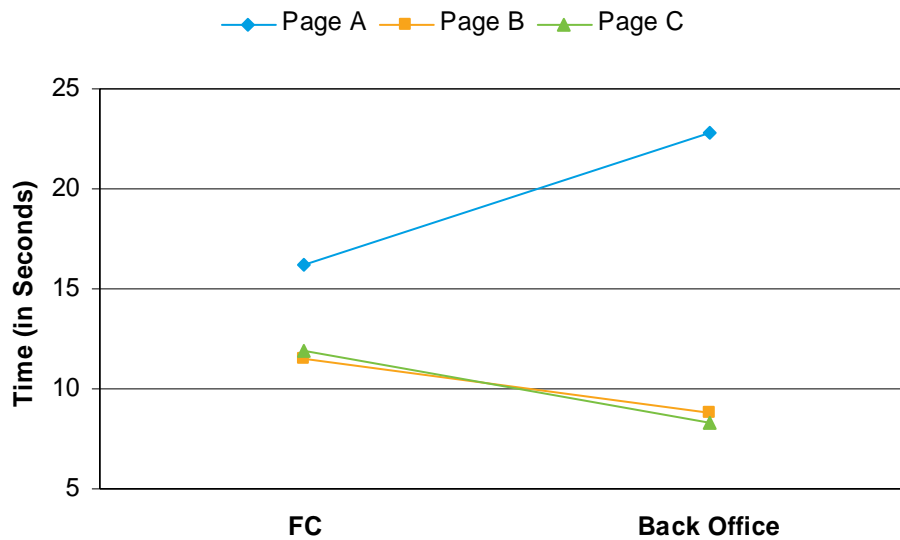
Participants were asked to complete the SUS questionnaire for each page after performing the tasks.



- Page B had the highest average SUS score
- The current page (A) had the lowest score
- Page B is more usable than A or C
- When calculated without the Back Office scores, the overall average was only 2 points less

Page Analysis

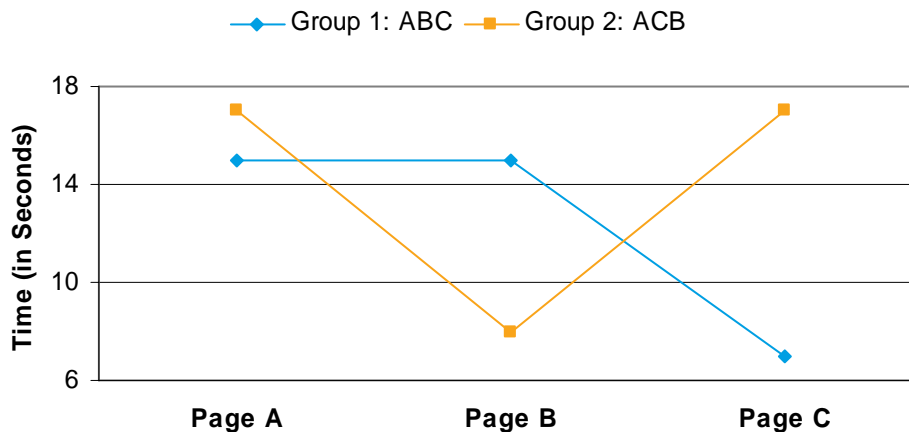
There is a statistical difference between Pages A and B as well as between Pages A and C; however, there is no statistical difference between Pages B and C (See Appendix 3.3).

Location Analysis
Average Time on Task by Location


- The Back Office took more time on Page A and less time on Pages B and C
- This is a statistically significant difference (See Appendix 3.4), however there are only 3 Back Office participants and 12 Front Office Participants

Group Analysis

For the graph below, Group 1 tested the pages in the following order: ABC and Group 2 tested the pages in the following order: ACB.

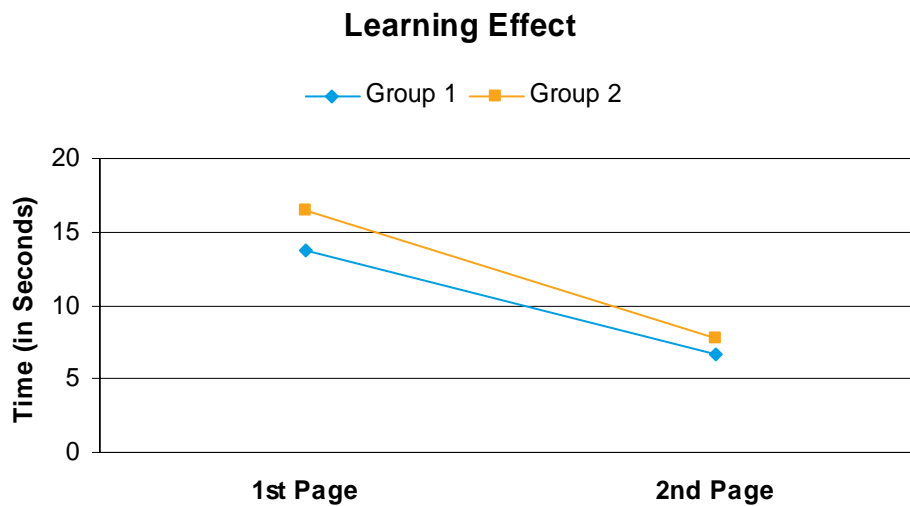
Group Interaction Plot


- There is a significant difference (interaction main effect) for Group 1 and 2 between Page B and C

- Group 1 performed about the same on page B after the current page (A), but performed much better on the last page they tested, C
- Group 2 performed much better on Page B than Page C because they tested page B after Page C
- This learning effect was anticipated, which is why the pages were tested in two groups with different orders (ABC and ACB); when scores are averaged together, the existence of the two groups counterbalances the overall averages

Learning Effect

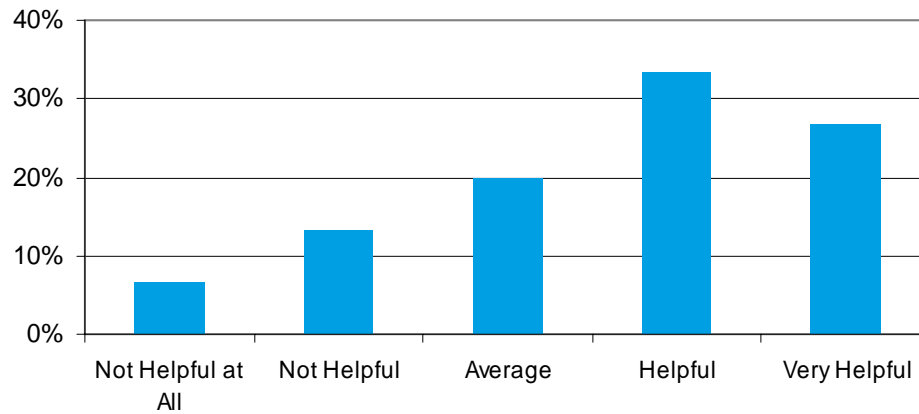
The learning effect has been calculated to show how easy it is to learn where items are on the page. Regardless of whether participants tested B or C first, the scores have been grouped together under "1st Page" and "2nd Page" to show how much faster participants found the same content on a similar page.



- When comparing scores for Groups 1 and 2, they always did better on the second redesigned page
- There is a significant difference between the first redesigned page users encountered and the second redesigned page they encountered
- When a redesign is implemented, people will not have a difficult time to learn the new page
- See Appendix 3.5

SUBJECTIVE MEASURES

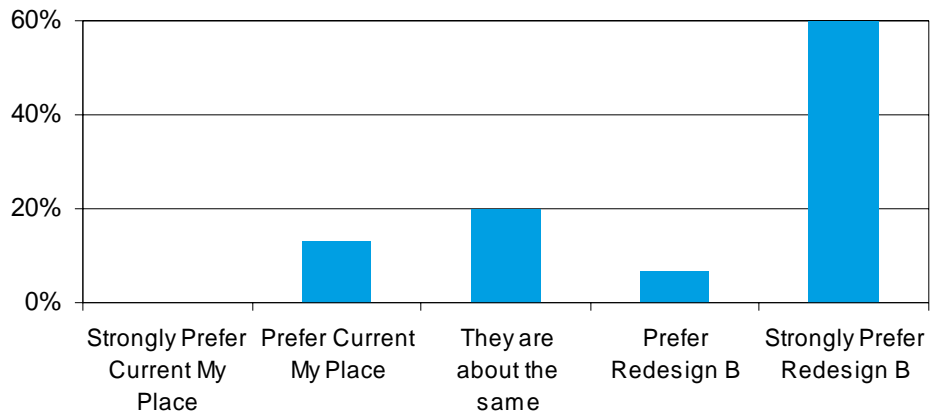
Subjective measures include user preferences for each of the items below.

Words to Bank By**How helpful is it to have WTBB on the Page?**

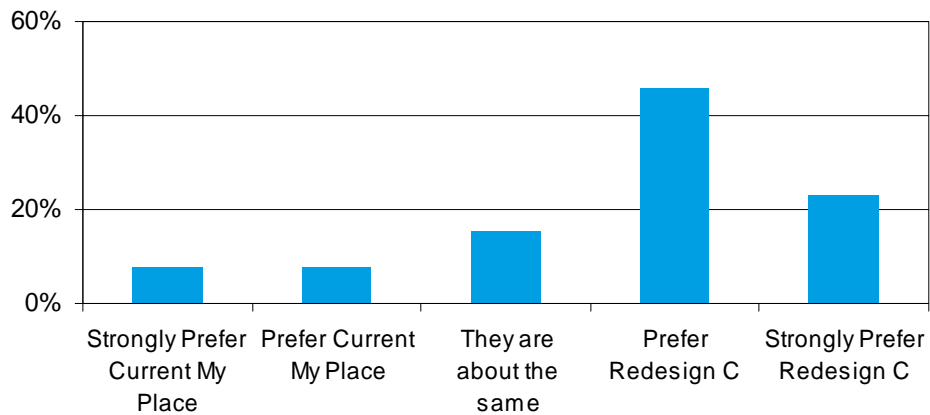
- 60% said that it was Helpful or Very Helpful to have Words to Bank By (WTBB) on the redesigned page
- 20% said that it was Not Helpful or Not Helpful at All to have WTBB on the redesigned page

Page Preference

After reviewing page B, participants were asked to put themselves on a scale of preference for the current My Place on one end and Redesign B on the other.

Preference for Redesign B


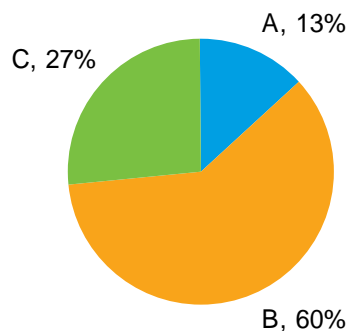
- 60% Strongly Prefer B
- 67% Prefer or Strongly Prefer B

Preference for Redesign C


- Only 23% Strongly prefer C
- 69% Prefer or Strongly Prefer C

At the end of the testing, participants were asked to select one page that they liked best overall. The results are shown in the graph below.

Page Design Preference



- Overall, 60% prefer B
- 27% prefer C
- 13% prefer A (the current version) – this is only 2 participants, both in the FC. When asked why, they responded that the current page works fine for them and didn't like change

USER FEEDBACK

Words to Bank By

- Participants noted that they only need to read Words to Bank By once a week and for the rest of the week they would not need it there
 - It may make the content on the page seem stale if it is only updated once a week
 - It was suggested that a link to WTBB be included on the page as easy access to it is helpful, they just don't need to see it every day
 - "A link to WTBB under About Retail Bank is all we need"
- There was also concern about what would happen to My Place News, which is more current than Words to Bank By as it came out as needed and not just once a week
 - Liked daily news on current page
- How do alerts fit into WTBB?
- Users expected the WTBB icons to be clickable to views of content just for them
- Tellers were less interested in the content of WTBB

Links on Redesigned Pages

- More links are needed:
 - Guide Online
 - Find an FC under Helping Customers

- System Release under All About Retail Bank
- TSR should be on Deposit Products or All About You
- BOR would not be under All About You
- PIE should be under Helping Customers
- Offer Redemption under Helping Customers or Checking/Savings
- Pay Advice and Report My Time are redundant links because they are already on the Homepage

Redesign B

- Easier to have main links in the middle because that's where the eye focuses
- Participants that used My Links liked this page better because they weren't pushed down to the bottom of the page
- This redesign is the most similar to the current site
- "Wow - I can see everything at once"

Redesign C

- Participants perceived this page as "cleaner" and with "more white space" perhaps because the banner does not have a background color
- This version brings more attention to the articles, but if they are only updated once a week, there is concern that the content on the page will appear stale

RECOMMENDATIONS

HIGH PRIORITY


- Move forward with plans for Redesign B
- Words to Bank By – Determine the purpose of WTBB and update frequency. There was concern that the page would become stale if it is only updated once a week.
- My Place News – There was concern over what would happen to My Place News, which was updated daily and perceived as more important than WTBB.
- Link directly to the Guide Online from the redesigned page, it's used frequently enough that this would be helpful.

MEDIUM PRIORITY

- WTBB Icons should be clickable. Users expected the icons to be links to views of the content just for them.
- The sub pages need to be more robust. Users were confused as to how to get to some content (PIE, TSR, Offer Redemption, etc.) and would just search to find it.
- The Back Office users have very different needs for their My Place page. Even the participants we tested that are currently in the back office said that when they were in the front office, the redesigned pages would have been very helpful to them, but in their current roles, they were not as helpful. The redesigned pages are very focused on the Front Line. Consider more research into the needs of the Back Office and having a separate My Place for them.

LOW PRIORITY

- Remove Pay Advice and Report My Time. Even though these are high traffic items, these are links to content that are not the primary focus of the page and they are redundant as they are already shortcuts on the Homepage. Looking forward, with the integration of My Place with the Homepage into My Homepage Edition, the Shortcut Links will be on the page already, so we might as well get users used to finding them on the Homepage.
- Some participants were confused as to whether it actually *was* Words to Bank By. Perhaps the WTBB banner could be incorporated into the icons instead of the SharePoint title. Participants also clicked on the down arrow and were confused as to what it did.

Words to Bank By 

APPENDIX 1: TASKS AND TEST SCRIPT

INTRODUCTION

Welcome to the usability evaluation of the Retail Bank My Place! The purpose of this evaluation is to make sure that the people who will be using WaMu.net can do so quickly and efficiently. Your feedback on the new navigation will help us to refine it and make sure that it is usable.

- We will be compiling our notes into a final report which will be shared with WaMu.net Publishing and Retail Banking Communications
- Though we will be taking notes and may use direct quotes, your name will not be used in reference to anything you say
- Nothing you say will be used against you
- Please be as honest as you can during the evaluation
- Please act as you would in a real world setting
- We are not testing you; we are testing whether our proposed redesigns work for you
- If you would give up, ask someone or use search, let me know and we'll go on to the next task
- For the purposes of this test, please try to use the page to find your content first, if you feel that you cannot complete the task, let me know that you would search and we'll go on to the next task

TASK 1: GUIDE ONLINE

Scenario

Find the Guide Online.

Please tell us when you have completed this task.

On a scale of 1-5 (1 being Not Confident at All and 5 being Very Confident), how confident are you that you have completed this task correctly?

TASK 2: FC WEB

Scenario

Log in to FC Web.

Please tell us when you have completed this task.

On a scale of 1-5 (1 being Not Confident at All and 5 being Very Confident), how confident are you that you have completed this task correctly?

TASK 3: SMALL BUSINESS**Scenario**

Find information on the Small Business Credit Card.

Please tell us when you have completed this task.

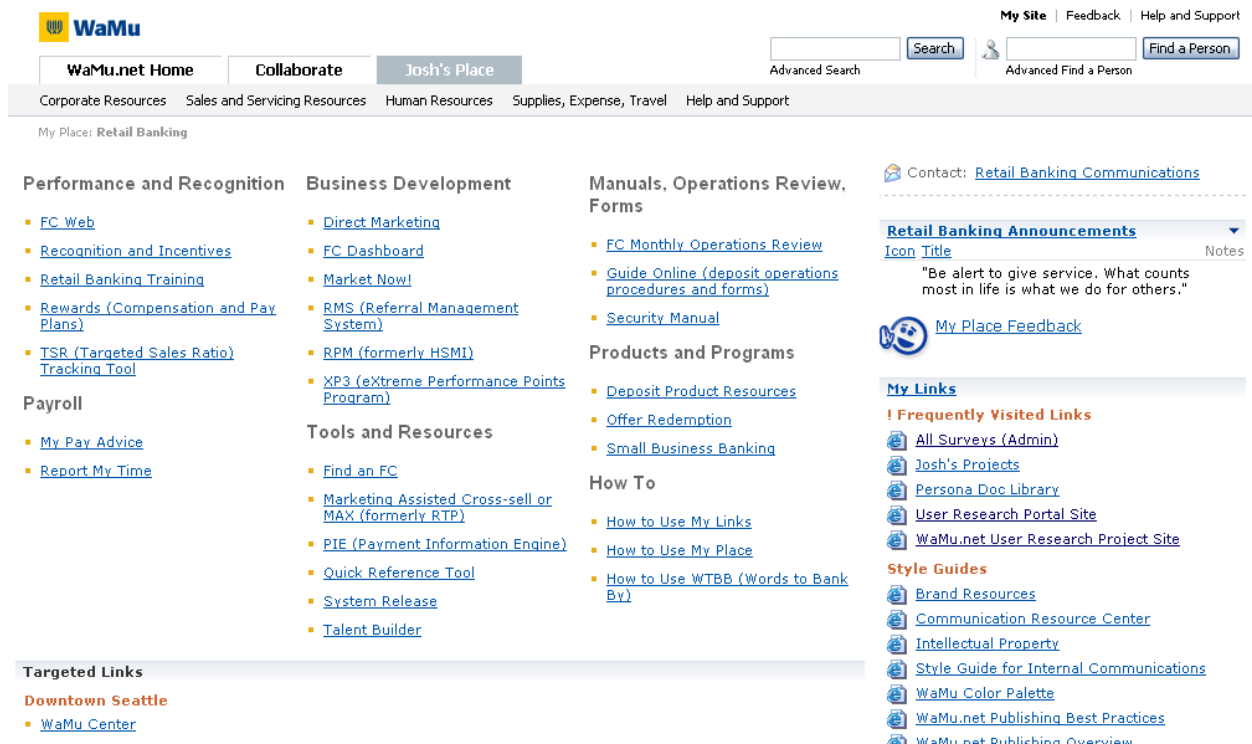
On a scale of 1-5 (1 being Not Confident at All and 5 being Very Confident), how confident are you that you have completed this task correctly?

FOLLOW-UP QUESTIONS

1. Do you prefer the redesigned page to the current page? 1-5 scale, 1 is prefer current page, 5 is prefer redesigned page
2. Do you find it helpful to have WTBB on My Place? 1-5 scale, 1-no, definitely not, 5-yes, definitely

APPENDIX 2: SCREENSHOTS

PAGE A



WaMu | My Site | Feedback | Help and Support

Advanced Search Search Advanced Find a Person Find a Person

[WaMu.net Home](#) | [Collaborate](#) | [Josh's Place](#)

[Corporate Resources](#) | [Sales and Servicing Resources](#) | [Human Resources](#) | [Supplies, Expense, Travel](#) | [Help and Support](#)

My Place: Retail Banking

Performance and Recognition

- [FC Web](#)
- [Recognition and Incentives](#)
- [Retail Banking Training](#)
- [Rewards \(Compensation and Pay Plans\)](#)
- [TSR \(Targeted Sales Ratio\) Tracking Tool](#)

Payroll

- [My Pay Advice](#)
- [Report My Time](#)

Business Development

- [Direct Marketing](#)
- [FC Dashboard](#)
- [Market Now!](#)
- [RMS \(Referral Management System\)](#)
- [RPM \(formerly HSMI\)](#)
- [XP3 \(eXtreme Performance Points Program\)](#)

Tools and Resources

- [Find an FC](#)
- [Marketing Assisted Cross-sell or MAX \(formerly RTP\)](#)
- [PIE \(Payment Information Engine\)](#)
- [Quick Reference Tool](#)
- [System Release](#)
- [Talent Builder](#)

Manuals, Operations Review, Forms

- [FC Monthly Operations Review](#)
- [Guide Online \(deposit operations procedures and forms\)](#)
- [Security Manual](#)

Products and Programs

- [Deposit Product Resources](#)
- [Offer Redemption](#)
- [Small Business Banking](#)

How To


- [How to Use My Links](#)
- [How to Use My Place](#)
- [How to Use WTBB \(Words to Bank By\)](#)

Contact: [Retail Banking Communications](#)

Retail Banking Announcements Notes

Icon Title

"Be alert to give service. What counts most in life is what we do for others."

 [My Place Feedback](#)

My Links

! Frequently Visited Links

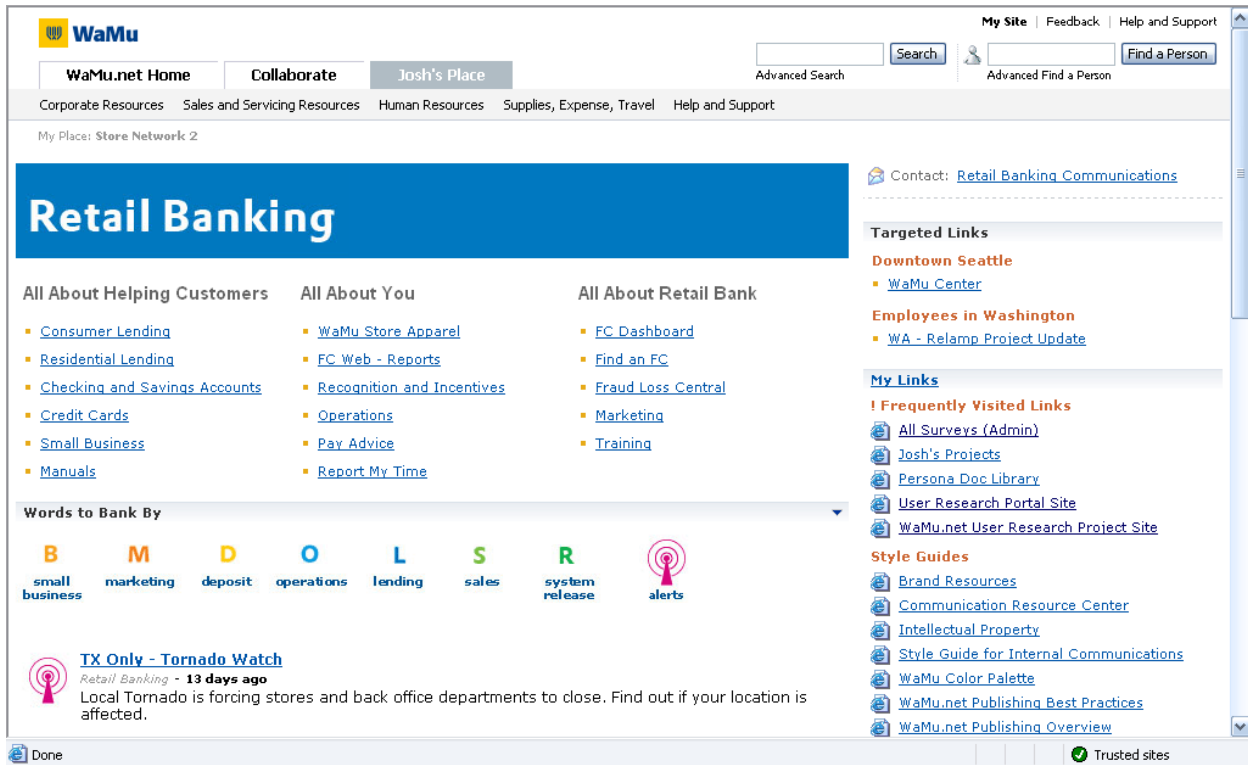
- [All Surveys \(Admin\)](#)
- [Josh's Projects](#)
- [Persona Doc Library](#)
- [User Research Portal Site](#)
- [WaMu.net User Research Project Site](#)

Style Guides

- [Brand Resources](#)
- [Communication Resource Center](#)
- [Intellectual Property](#)
- [Style Guide for Internal Communications](#)
- [WaMu Color Palette](#)
- [WaMu.net Publishing Best Practices](#)
- [WaMu.net Publishing Overview](#)

Targeted Links

- [Downtown Seattle](#)
- [WaMu Center](#)

PAGE B


WaMu | My Site | Feedback | Help and Support

WaMu.net Home | Collaborate | **Josh's Place**

Corporate Resources | Sales and Servicing Resources | Human Resources | Supplies, Expense, Travel | Help and Support

My Place: Store Network 2

Retail Banking

Contact: [Retail Banking Communications](#)

All About Helping Customers

- Consumer Lending
- Residential Lending
- Checking and Savings Accounts
- Credit Cards
- Small Business
- Manuals


All About You

- WaMu Store Apparel
- FC Web - Reports
- Recognition and Incentives
- Operations
- Pay Advice
- Report My Time

All About Retail Bank

- FC Dashboard
- Find an FC
- Fraud Loss Central
- Marketing
- Training

Words to Bank By

B small business |
 M marketing |
 D deposit |
 O operations |
 L lending |
 S sales |
 R system release |
  alerts

TX Only - Tornado Watch
Retail Banking - 13 days ago
Local Tornado is forcing stores and back office departments to close. Find out if your location is affected.

Targeted Links

- Downtown Seattle
- WaMu Center
- Employees in Washington
- WA - Relamp Project Update

My Links

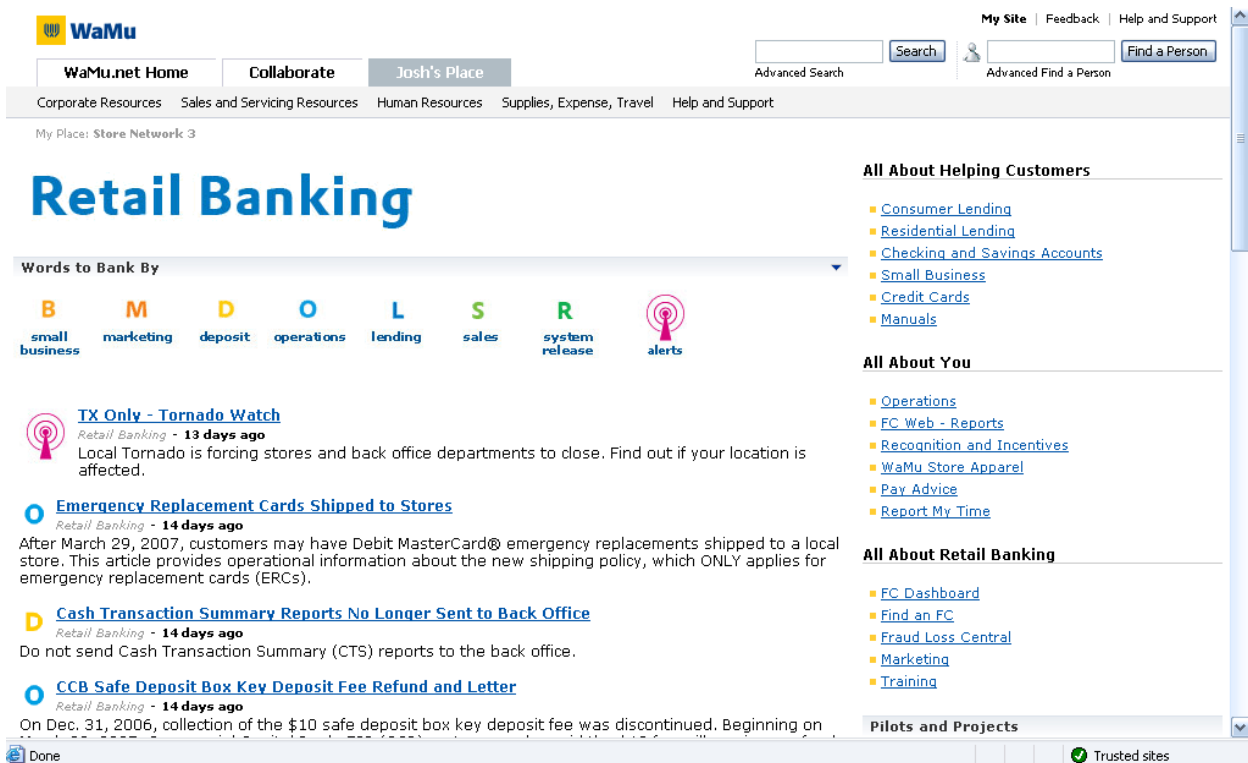
Frequently Visited Links

- All Surveys (Admin)
- Josh's Projects
- Persona Doc Library
- User Research Portal Site
- WaMu.net User Research Project Site

Style Guides

- Brand Resources
- Communication Resource Center
- Intellectual Property
- Style Guide for Internal Communications
- WaMu Color Palette
- WaMu.net Publishing Best Practices
- WaMu.net Publishing Overview

Done Trusted sites

PAGE C


WaMu | My Site | Feedback | Help and Support


WaMu.net Home | Collaborate | **Josh's Place**

Corporate Resources | Sales and Servicing Resources | Human Resources | Supplies, Expense, Travel | Help and Support

My Place: Store Network 3

Retail Banking

Words to Bank By

B small business |
 M marketing |
 D deposit |
 O operations |
 L lending |
 S sales |
 R system release |
  alerts

TX Only - Tornado Watch
Retail Banking - 13 days ago
Local Tornado is forcing stores and back office departments to close. Find out if your location is affected.

Emergency Replacement Cards Shipped to Stores
Retail Banking - 14 days ago
After March 29, 2007, customers may have Debit MasterCard® emergency replacements shipped to a local store. This article provides operational information about the new shipping policy, which ONLY applies for emergency replacement cards (ERCs).

Cash Transaction Summary Reports No Longer Sent to Back Office
Retail Banking - 14 days ago
Do not send Cash Transaction Summary (CTS) reports to the back office.

CCB Safe Deposit Box Key Deposit Fee Refund and Letter
Retail Banking - 14 days ago
On Dec. 31, 2006, collection of the \$10 safe deposit box key deposit fee was discontinued. Beginning on

All About Helping Customers

- Consumer Lending
- Residential Lending
- Checking and Savings Accounts
- Small Business
- Credit Cards
- Manuals

All About You

- Operations
- FC Web - Reports
- Recognition and Incentives
- WaMu Store Apparel
- Pay Advice
- Report My Time

All About Retail Banking

- FC Dashboard
- Find an FC
- Fraud Loss Central
- Marketing
- Training

Pilots and Projects

Done Trusted sites

APPENDIX 3: STATISTICAL ANALYSIS

3.1 TASK 3 ANOVA

ANOVA: Task 3

SUMMARY

<i>Groups</i>	<i>Count</i>	<i>Sum</i>	<i>Average</i>	<i>Variance</i>
Page A	15	364	24.26667	166.3524
Page B	15	144	9.6	39.4
Page C	15	119	7.933333	11.49524

ANOVA

<i>Source of Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
Between Groups	2423.333	2	1211.667	16.73206	4.53E-06	3.219942
Within Groups	3041.467	42	72.41587			
Total	5464.8	44				

$$F_{(2, 42)} = 16.73, p < .05$$

Tasks 1 and 2 did not have a significant difference by page.

3.2 TASK INTERACTION TWO-FACTOR ANOVA

ANOVA: Two-Factor With Replication

SUMMARY	Page A	Page B	Page C	Total
<i>Task 1</i>				
Count	12	12	12	36
Sum	231	252	285	768
Average	19.25	21	23.75	21.33333
Variance	200.0227	256.7273	415.1136	277.5429
<i>Task 2</i>				
Count	12	12	12	36
Sum	58	42	57	157
Average	4.833333	3.5	4.75	4.361111
Variance	7.424242	1.727273	4.204545	4.580159
<i>Task 3</i>				
Count	12	12	12	36
Sum	296	120	88	504
Average	24.66667	10	7.333333	14
Variance	186.7879	49.09091	10.42424	137.1429
<i>Total</i>				
Count	36	36	36	
Sum	585	414	430	
Average	16.25	11.5	11.94444	
Variance	195.9643	150.3143	207.8825	

ANOVA						
Source of Variation	SS	df	MS	F	P-value	F crit
Sample	5216.907	2	2608.454	20.74734	2.98E-08	3.08824
Columns	495.5741	2	247.787	1.970869	0.144765	3.08824
Interaction	1731.981	4	432.9954	3.443995	0.011148	2.46355
Within	12446.75	99	125.7247			
Total	19891.21	107				

$$F_{(4, 99)} = 3.44, p < .05$$

3.3 T-TESTS COMPARING PAGES

t-Test: Page A vs. Page B, Significant

	<i>Page A</i>	<i>Page B</i>
Mean	17.55555556	10.95555556
Variance	333.1161616	125.8616162
Observations	45	45
Hypothesized Mean Difference	0	
df	73	
t Stat	2.066590188	
P(T<=t) one-tail	0.021160272	
t Critical one-tail	1.665996224	

$$t_{(73)} = 2.07, p < .05$$

t-Test: Page A vs. Page C, Significant

	<i>Page A</i>	<i>Page C</i>
Mean	17.55555556	11.22222222
Variance	333.1161616	170.4040404
Observations	45	45
Hypothesized Mean Difference	0	
df	80	
t Stat	1.893346727	
P(T<=t) one-tail	0.030963694	
t Critical one-tail	1.664124579	

$$t_{(80)} = 1.89, p < .05$$

t-Test: Page B vs. Page C, Not Significant

	<i>Page B</i>	<i>Page C</i>
Mean	10.95555556	11.22222222
Variance	125.8616162	170.4040404
Observations	45	45
Hypothesized Mean Difference	0	
df	86	
t Stat	-0.103928422	
P(T<=t) one-tail	0.458734069	
t Critical one-tail	1.66276545	

3.4 ANOVA ON LOCATION

ANOVA: Two-Factor With Replication-Location

SUMMARY	Page A	Page B	Page C	Total
<i>FC</i>				
Count	9	9	9	27
Sum	216	101	70	387
Average	24	11.22222	7.7777778	14.33333
Variance	221.25	60.69444	10.194444	140.4615

<i>Corporate Back Office</i>				
Count	9	9	9	27
Sum	205	79	75	359
Average	22.77778	8.777778	8.3333333	13.2963
Variance	936.4444	27.94444	16	348.3704

<i>Total</i>				
Count	18	18	18	
Sum	421	180	145	
Average	23.38889	10	8.0555556	
Variance	545.1928	43.29412	12.408497	

ANOVA						
Source of Variation	SS	df	MS	F	P-value	F crit
Sample	14.51852	1	14.518519	0.068455	0.794719	4.042652
Columns	2508.926	2	1254.463	5.914824	0.005056	3.190727
Interaction	20.48148	2	10.240741	0.048285	0.952908	3.190727
Within	10180.22	48	212.08796			
Total	12724.15	53				

$$F_{(2, 48)} = 5.91, p < .05$$

3.5 LEARNING EFFECT

t-Test: 1st Page vs. 2nd Page

	<i>1st Page</i>	<i>2nd Page</i>
Mean	15.02222	7.155556
Variance	244.3404	20.31616
Observations	45	45
Pearson Correlation	0.691548	
Hypothesized Mean Difference	0	
df	44	
t Stat	4.081004	
P(T<=t) one-tail	9.29E-05	
t Critical one-tail	1.68023	

$$t_{(44)} = 4.08, p < .05$$