



USABILITY TEST REPORT: Nokia S40 Email and Chat

December 2010

Agenda

- Study Overview
 - Background, Goals & Scope
 - Methodology
 - Participants
 - Tasks
- Findings
 - Executive Summary
 - Discoverability
 - Chat
 - Email
 - Hardware
- Conclusion
- Questions?



Section 1

STUDY OVERVIEW

Background, Goals & Scope

Background

- Chat and email applications were originally developed for a non-touch screen phone and were not specifically redeveloped for “touch-and-type” hardware.
- Question: Was usability of chat and email applications compromised in the process of porting them to new hardware?

Goals of the study

- Evaluate the **discoverability** of chat and email applications
- Evaluate the **usability** and the **multi-headed functionality** of chat and email applications

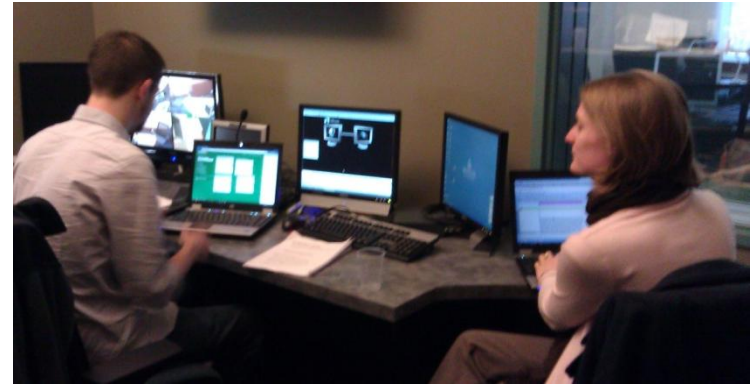
Scope

- The general usability of the touch and type phone and S40 Operating System was not a primary goal of this study.
- Findings drawn from American participants may not fully predict the experience of Nokia users in Europe and Asia.



Methodology

- **9 participants** (screened from 121 respondents) recruited via Craigslist and Bentley FullDorm
- Overview of test sessions:
 - All sessions conducted at Bentley Design and Usability Center, November 11th to 20th, 2010
 - 1-on-1 sessions, 60 minutes each
 - **11 tasks, before and after ratings, and think aloud**
 - Recorded using Morae
- Bentley team categorized usability findings using the **Dumas and Redish (1999)** severity scale
 - From 1 (most severe) to 4 (least severe)
 - See **Appendix A** for scale description



● Observation room (top) and test environment (bottom)

Participants

- Excluded Smartphone users, and users with extensive familiarity with iPod touch or iPad
- All participants were proficient email, IM and text messaging users, but most did not use email or IM on their phone
- Reference **Appendix B** for detailed participant profiles

Characteristic	Number
Total	9
<i>Gender</i>	
Female	6
Male	3
<i>Age</i>	
18 to 25	3
26 to 39	4
40 to 59	2
<i>Cell Phone Brand</i>	
Non-Nokia Users	7
Nokia Users	2
<i>Cell Phone Screen Type</i>	
Touch Screen	3
Non-touch Screen	6

Tasks

- **11 total tasks:** 1 discoverability task, 7 chat tasks, 3 email tasks
- Only 4 participants were able to attempt all 11 tasks, 6 participants attempted first 10 tasks.
- Tasks presented to participant on **printed card** (example appears below)
- **Participants were asked to rate how easy or difficult** he/she thought the task would be, and how easy or difficult he/she actually found the task to be.
- See **Appendix C** for exact wording of tasks.

TASK 1

Find the chat and email applications from the homescreen and/or the menu.

**** END OF TASK ****

Before task:					After task:				
1	2	3	4	5	1	2	3	4	5
very difficult	somewhat difficult	neither easy nor difficult	somewhat easy	very easy	very difficult	somewhat difficult	neither easy nor difficult	somewhat easy	very easy

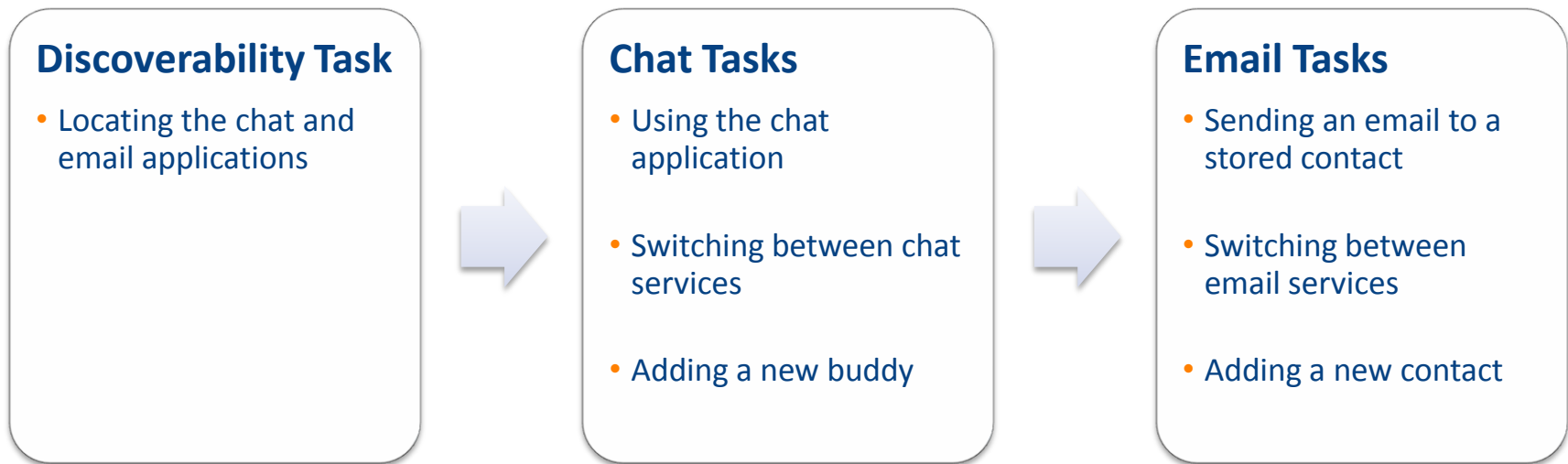
● Task card

Section 3

OVERVIEW OF FINDINGS

Overview of Findings

- The remaining slides in this section provide an example of findings and recommendations presented to Nokia at the conclusion of the study.
- **Actual findings and recommendations are not included because they are confidential.**
- Findings and recommendations covered functionality in three major categories:



Category 1 Finding

Severity Rating: 1

FINDING: Sample overview.

- Supporting evidence 1
- Supporting evidence 2
- Supporting evidence 3
- Supporting evidence 4

- Screen shot supporting finding 1



- Screen shot supporting finding 1

Category 1 Finding

Severity Rating: 1

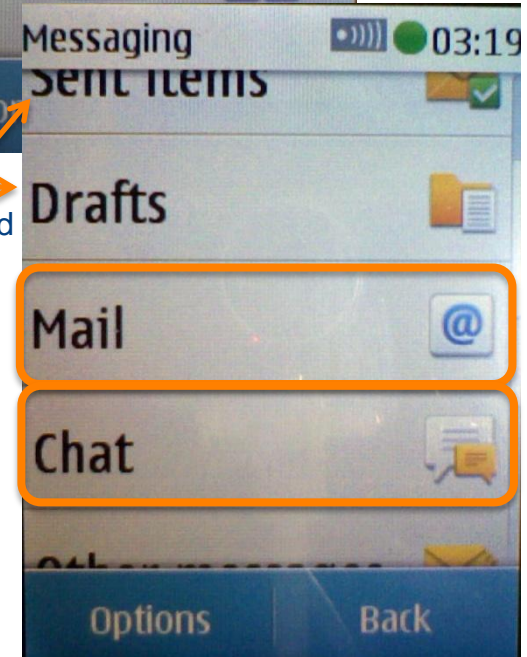
RECOMMENDATION: Overview of recommendation

- Recommendation 1
 - Alternative 1.
 - Alternative 2.
 - Alternative 3.
- Recommendation 2
 - Supporting evidence.

● Screen shot supporting finding 1



Highlight areas discussed in finding 1



● Screen shot supporting finding 1

Category 1 Video: Overview of Findings

 **Video:** Video supporting category 1 findings.



Section 8

APPENDICES A-E

Appendix A: Dumas & Redish (1999) Severity Scale

Rating	Description
1 (most severe)	Problems that prevent completion of a task.
2	Problems that create significant delay and frustration.
3	Problems that have a minor effect on usability.
4 (least severe)	Problems that are more subtle and often point to an enhancement that can be added in the future.

Dumas, J.S. , & Redish, J.C. (1999). *A practical guide to usability testing (revised ed.)*. Portland, OR: Intellect Books.

Appendix B: Detailed Participant Profiles

#	Age Range	Gender	Current cell phone model	Touch screen cell phone?	Frequency of use:					
					iPad/iPod Touch	IM/Chat on Computer	Email on Computer	Text Messaging on Phone	IM/Chat on Phone	Email on Phone
P1	18 to 25	Male	Samsung Allias	No	Never	Almost everyday	Everyday	Everyday	Never	Never
P2	40 to 59	Male	Samsung A867	Yes	Never	Occasionally/Sometimes	Everyday	Occasionally/Sometimes	Occasionally/Sometimes	Everyday
P3	26 to 39	Female	Samsung A867	Yes	Occasionally/Sometimes	Almost everyday	Everyday	Everyday	Never	Never
P4	26 to 39	Female	LG Evo	No	Occasionally/Sometimes	Everyday	Everyday	Everyday	Never	Never
P6	26 to 39	Female	Nokia [unspecified]	No	Almost never	Everyday	Everyday	Almost everyday	Never	Never
P7	18 to 25	Female	Sprint Sanyo	No	Never	Everyday	Everyday	Everyday	Occasionally/Sometimes	Almost everyday
P8	26 to 39	Female	Nokia 1661	No	Never	Occasionally/Sometimes	Almost everyday	Occasionally/Sometimes	Never	Never
P9	40 to 59	Female	Verizon [unspecified]	No	Never	Everyday	Everyday	Occasionally/Sometimes	Never	Never
P10	18 to 25	Male	LG VX10000 Voyager	Yes	Occasionally/Sometimes	Occasionally/Sometimes	Everyday	Everyday	Never	Never

Appendix C: Exact wording of task cards (1 of 6)

EXAMPLE CARD

Please pick up the cell phone and press the 1 button.

** END OF TASK **

TASK 1

Find the chat and email applications from the homescreen and/or the menu.

** END OF TASK **

TASK 2

You want to host a surprise party for your friend, Pat Conners, next Tuesday night. Using Google Chat (Google Talk), ask Pat (pconners91) to hang out with you on Tuesday night.

This is what you should write to Pat:

<parkerlane2010>: Are u free tues to hang out?

... wait for Pat to respond...

<parkerlane2010>: my place at 7?

... wait for Pat to respond...

** END OF TASK **

Appendix C: Exact wording of task cards (2 of 6)

TASK 3

Sara Burton (saraburton02), is helping you plan the party. Use Google Chat (Google Talk) to let Sara know the party is scheduled and asking her to bring cake.

<parkerlane2010>: party is on!

... wait for Sara to respond...

<parkerlane2010>: Cake?

... wait for Sara to respond...

** END OF TASK **

TASK 4

Respond to Pat's (pconners91) message.

<pconners91>: Can I invite my brother too?

<parkerlane2010>: Yup!

... wait for Pat to respond...

** END OF TASK **

Appendix C: Exact wording of task cards (3 of 6)

TASK 5

You realize that you should also invite Nicole Gibbons another of Pat's good friends, but she is not on your Google Chat (Google Talk) friends list. Invite Nicole (ngibbons83@gmail.com) to the party using Google Chat.

<parkerlane2010>: Are you free Tuesday?

** END OF TASK **

TASK 6

None of Pat's other friends use Google Talk because most of his friends use Windows Live/MSN Messenger. Kate Winters (Kwinters03) and Robert Sherman (Rsherman62) are in your Windows Live/MSN Messenger chat account. See if either are online and send them the following message.

<parkerlane2010>: Party for Pat on tues at 7

** END OF TASK **

Appendix C: Exact wording of task cards (4 of 6)

TASK 7

Respond to Nicole's (ngibbons83) message.

<ngibbons83>: Yup – I'm free Tuesday – what's going on?

<parkerlane2010>: Party for Pat at 7.

... wait for Nicole to respond...

** END OF TASK **

TASK 8

Respond to Kate's (Kwinters03) message.

<Kwinters03>: Cool, should I bring anything?

<parkerlane2010>: Snacks?

... wait for Kate to respond...

** END OF TASK **

Appendix C: Exact wording of task cards (5 of 6)

TASK 9

You want to email Pat's friends who were not signed into either of the chat services. One of these friends is Jon Davis. You have his email (jondavis8420@yahoo.com) saved in your Gmail contacts list. Send him an email from Gmail.

<email subject>: Party for Pat

<email body>: My place at 7!

<send email>

** END OF TASK **

Appendix C: Exact wording of task cards (6 of 6)

TASK 10

You also use Hotmail for some of your email communication. Use your Hotmail account to email Robert Sherman, since he was also not signed into either of the chat services. Email Rob (rsherman62@hotmail.com) the following information about the party:

<email subject>: Party for Pat

<email body>: My place at 7!

<send email>

Rob's email address is not yet saved in your email. After sending the email, add Rob's email address to your contacts list.

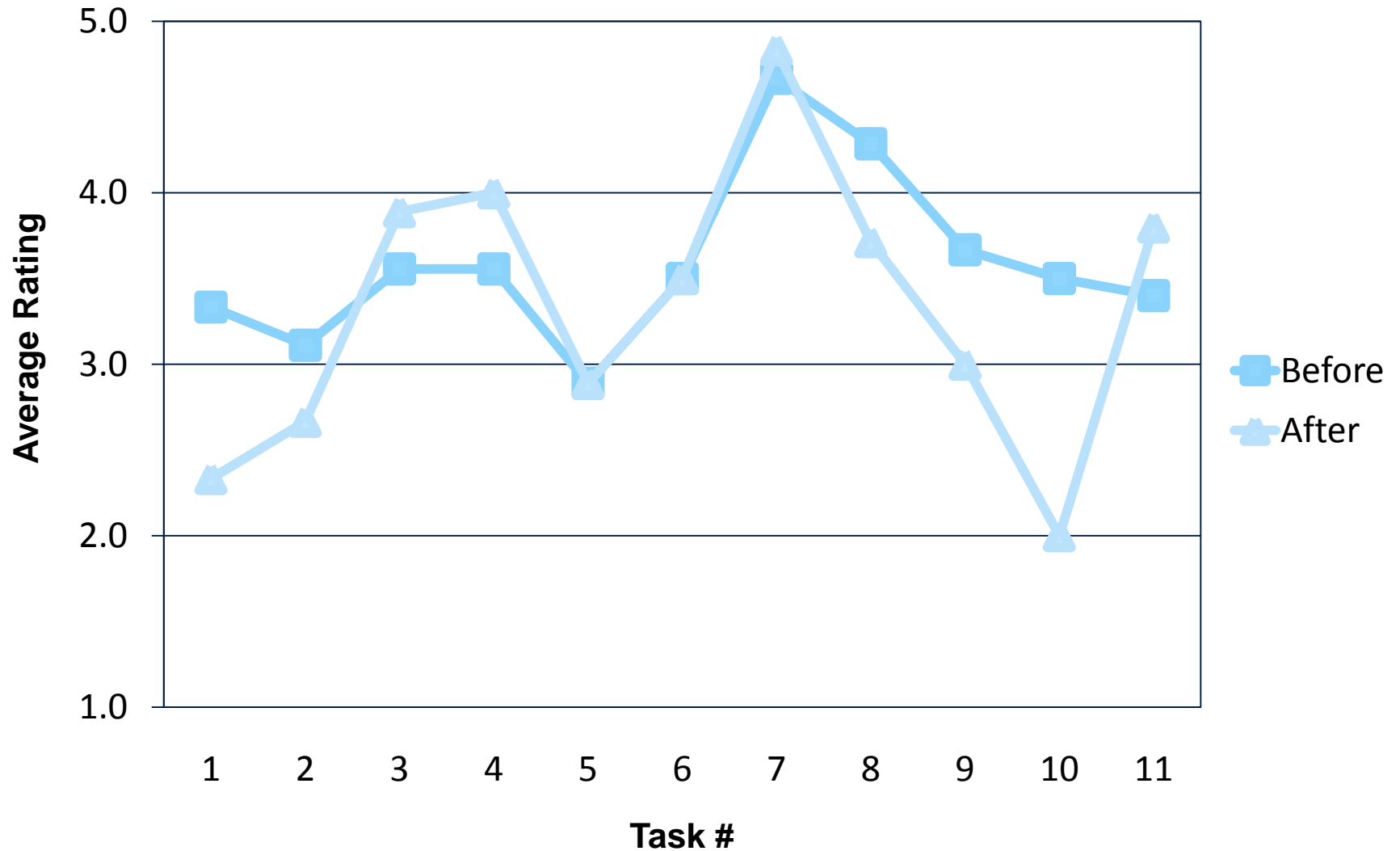
**** END OF TASK ****

TASK 11

Check to see if you have any new messages.

**** END OF TASK ****

Appendix D: Before and After Ratings



Appendix E: Task Time Data

Task Time (averages with highs and lows)

