

UNIVERSITY OF WASHINGTON

# CSE 440: Paper Prototype, Testing, Refinement

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## Team Members

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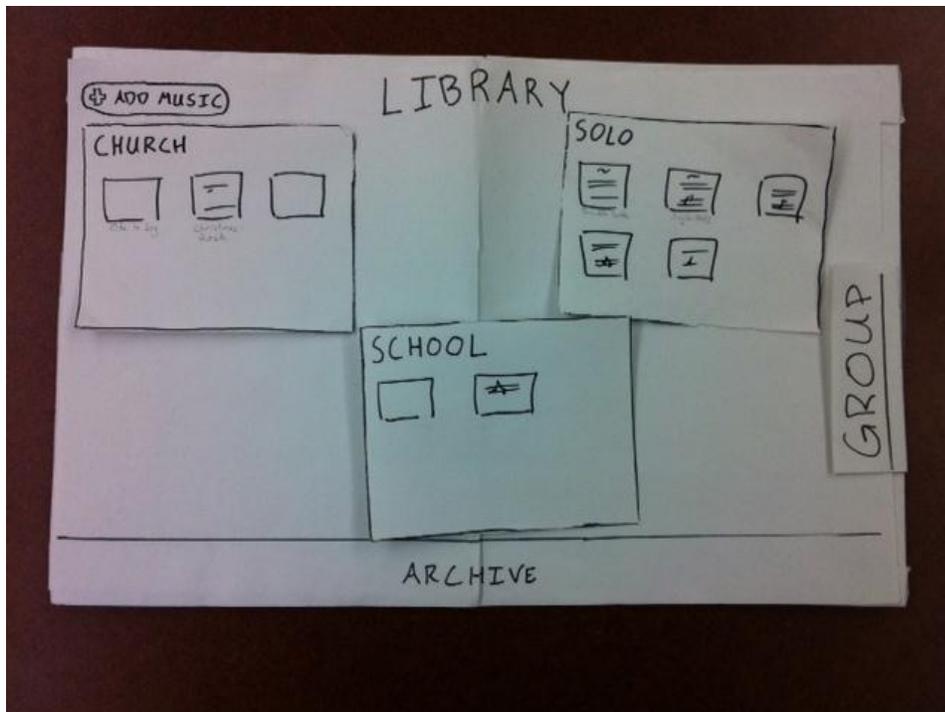
Aijia Yan: Documentation

## Problem Overview

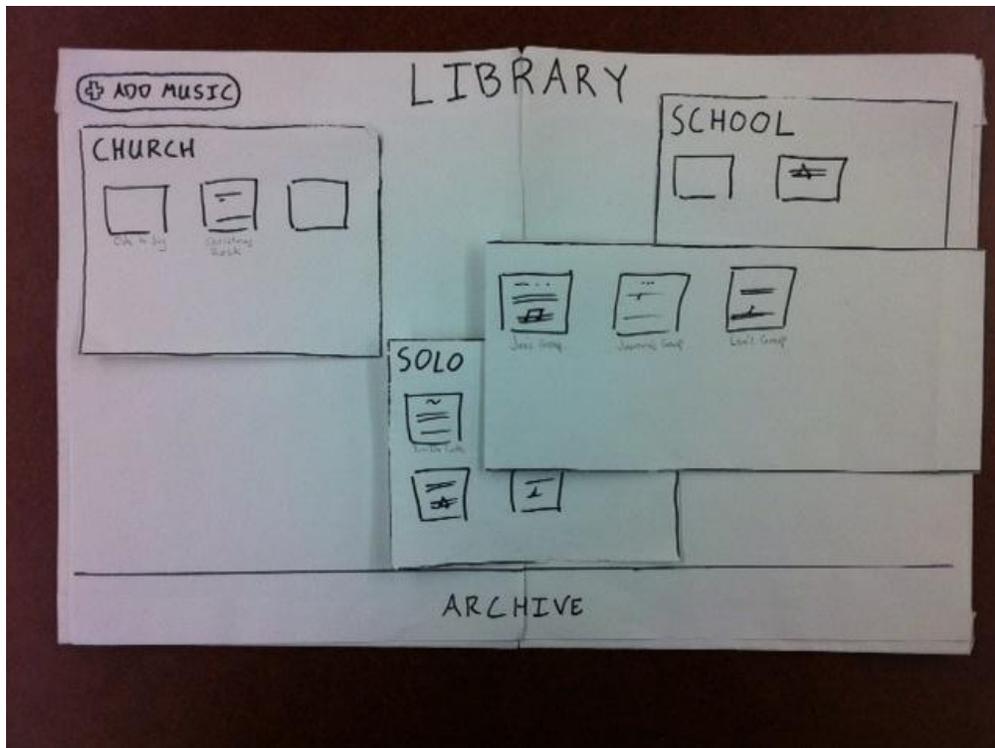
Musicians have been using iron sheet music stands that cannot be disassembled for a long time. There is no fun in using these because musicians have to place the physical music sheets on the stand, and the pages will not flip themselves. There have been many products that try to digitize sheet music, but few of them have a double-sized screen display or features that would allow more entertainment and flexibility. Our proposed solution is to design a virtual sheet music system, the Virtuoso, which is a device able to be placed on music stands, similar to sheet music now. The device will have a screen large enough to display two pages of sheet music, and a camera for scanning the sheet music using OCR. The system will not only offer additional features to make practicing more convenient than before, but will also replace many tools, such as pens, metronomes, and tuners.

## Paper Prototype

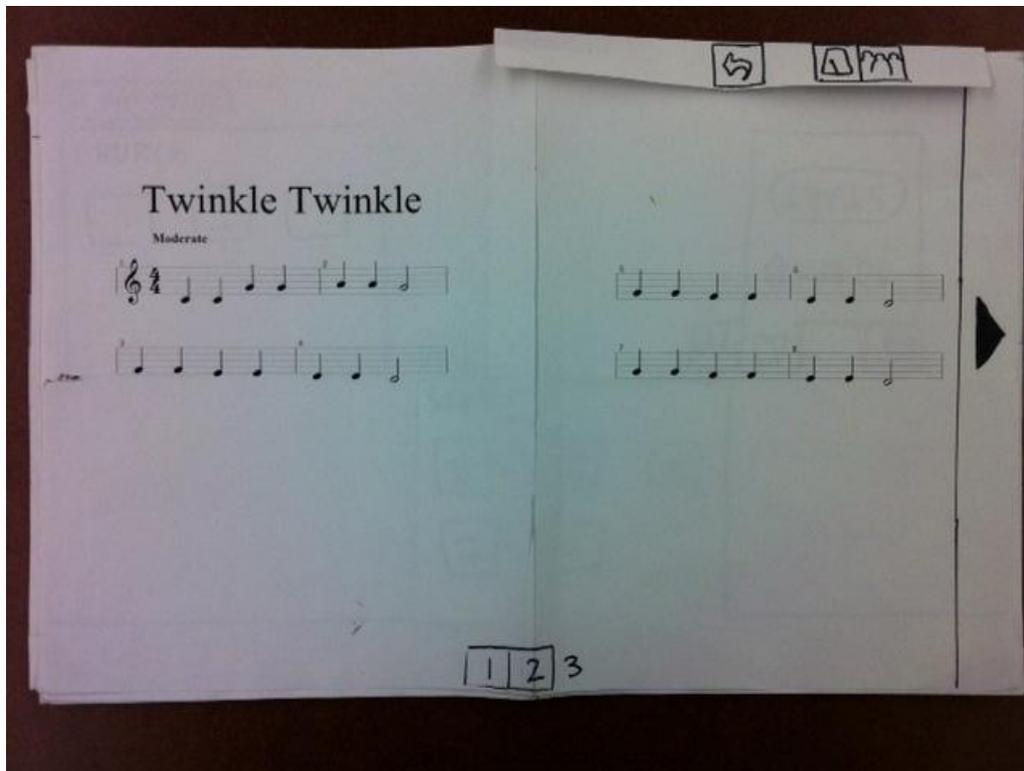
Our paper prototype captured our device's functionality very well. Like the real device, our paper prototype has three main screens. The main library page has sheets of paper representing categories of music that the user can rearrange as needed. On the device, our music viewing page will show a song along with a toolbar of things that can be done to the song. The paper version was modeled by printing out actual sheet music and drawing the interface around it. Our last screen, the scrolling music archive, was handled by cutting a hole in paper and sliding the list through.



Initially, the user is presented with a home screen with their sheet music library. Music can be organized into categories and rearranged around the screen as needed. In this above example, the user has decided to have a solo panel, church panel, and a school panel to divide the music based on how it is performed. Within each category, each square is a link to a piece of sheet music. This screen only shows the user's active music. Musicians can archive pieces they will likely not play anymore by dragging them to the archive.

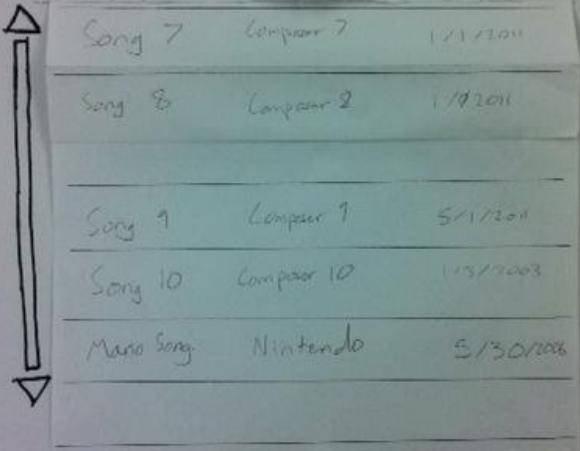


The group tab expands when clicked to show icons of nearby groups that are playing music. A user can join any group to play along and share annotations. Once a group is clicked, the sheet music is immediately brought onto the screen, and musicians can interact with the piece as if it were their own.



The main sheet music viewing screen shows sheet music in the center. This is what musicians will be looking at for the majority of the time they are using the device. The page turn buttons are located on the sides, along with a visual page display on the bottom that allows musicians to quickly jump to a page. On the top right are menu items, including going back to the main menu, a metronome, and create sync group. Tapping the music with your finger allows the user to playback the music. Writing with the pen creates annotations that can be shared if the piece is synced.

HOME  
ARCHIVE



Song 7	Composer 7	1/1/2011
Song 8	Composer 8	1/1/2011
Song 9	Composer 9	5/1/2011
Song 10	Composer 10	1/3/2003
Mario Song	Nintendo	5/30/2006

The music archive is where musicians can go to find old pieces. Musicians typically rehearse only a small set of songs at a time. The pieces they are no longer playing are stored in the archive. The archive is in tabular format because it is more appropriate for old music. The columns can be sorted and search functionality is provided so old music can be easily found.

## Testing Method

### Participants

We chose our participants based on level of musical experience. Like with our previous tests, we wanted a range of musicians to test our product in order to get the widest range of input. We decided to have five participants because five is a magic number that should give us about 75% of the interface issue feedback.

Participant #1: Advanced Musician

Participant #2: Advanced Musician

Participant #3: Novice Musician

Participant #4: Novice Musician

Participant #5: Novice musician

### Environment

Testing involved playing some simple songs with musical instruments, so we tested musicians in the place they would normally practice. For some this was the UW School of Music, for others it is their bedroom. Our final device is intended to be placed on a music stand. For paper prototyping, we either placed the prototype on a flat surface or tilted the stand as necessary.

### Tasks

Our tasks have been modified a couple times before the usability tests. The three original tasks were feature-heavy and did not fully present the activities users would use Virtuoso for. Based on the results of peer reviews and pilot studies, we eliminated the scanning task, and revised the remaining two. The current tasks are listed as followed-ups.

#### **Task 1—Play a music piece**

You are at your Senior Recital and are requested to play the music piece *Twinkle Twinkle Little Star* from beginning to end. You are very familiar with the song because you practice very often.

#### **Task 2—Practice an unfamiliar song**

You haven't played the *Mario Theme Song* in a long time and forget how it goes. You get stuck in the middle of practicing because you don't get the rhythm. You want to hear how the second ending of the piece should sound.

### **Task 3—Play collaboratively with friends**

Your friend Jasmine is practicing a piece with her friends. She doesn't know where to play soft or loud. She invites you to join her group and play with her. You help her figure out how to play by writing in dynamics.

#### **Procedure**

We ran the usability tests separately on five participants. Before running the test, we created a usability toolkit that included a [Task Booklet for Participants](#), a [Post-Test Questionnaire](#), and a [Test Result Report](#). Before the test, we presented the Task Booklet to participants. The booklet informed them with the context of usage and what they were expected to know and to do. It was important for them to realize they were not obliged to the tests and they can quit whenever they feel uncomfortable.

While running the studies, we observed participants' behaviors, discovered the glitches, and took notes in the event log. After participants finished the tests, and collected user-feedback through post-test questionnaires. All the materials used are going to be included in the Appendix section.

#### **Test Measures**

Our test was majorly intended to discover and measure interface problems and collect qualitative data from users' feedback. Except the notes we took when conducting the studies, the post-test questionnaire contains qualitative measurements in the forms of having Likert Scale that as a statement and open-ended questions, such as "What was most difficult to do or understand?" By having a questionnaire, we were able to collect in-depth thoughts and suggestions from participants that might not be obvious to find out only by observing.

#### **Testing Results**

##### **Participant #1 and #2**

Overall participants 1 and 2 had a pleasant experience with the device. They both agreed that it mapped well to how a musician would use physical sheet music. There were times though those pieces of functionality were unclear or things did not make sense.

When playing through the piece in Task 1, participant 1 quickly figured out to tap the arrow to turn the page, but participant 2 did not see the arrow and tried to swipe the page.

From this we decided that we should support both swiping and the arrow, since there is no reason to limit the user into using one or the other.

In Task 2, once in the piece, figuring out how to get the device to play back was tricky. Participant 1 correctly chose to tap where she wanted to play back, but Participant 2 looked through the menus and was frustrated when she did not see the play feature in the menu. We can fix this by adding a playback button in the menu.

In Task 3, when asked to join a Group, both of the participants had trouble getting to the right place. Participant 2 did not see the Group button and Participant 1 tried to click the Add Music button. We can help fix this issue by not making the Group button sideways, and maybe by changing the label to something more descriptive than Group. Once the Group button was clicked, it was easy to figure out where to go.

### **Participant #3**

Participant 3 had a good experience with the interface, for the most part. He remarked after testing had concluded that it was an interface where, for a first-time user (as he was) it was potentially confusing and somewhat difficult. However, he also noted that it was very easy to navigate after he some experience with it.

The first task went well, with the participant easily breezing through it. The only potential hang-up was with the page numbers at the bottom. The participant noted that he briefly thought he was on page 3, but quickly realized that he was on page 1 and 2 of the song.

The second task had more errors pop up while navigating the interface. In attempting to search for the target song (“Mario Song”), the participant first searched the list of songs on Solo, Church, and School and went to one of the songs before moving back to the main menu and looking it over again. After looking the task over again, he realized that it specified that the song hadn’t been played “in a long time”, and found the “Archive” button (adding “that was obnoxious to find” upon reaching the screen). From there, he attempted to tap a measure to play it back, then tapped and dragged to play back the ending part of the song.

The third task is where the most difficult issue came up, both for the participant and the tester. The participant found both the song and the group sync button on the first try, and easily set up syncing the device. However, once synced, it was difficult to tell whether the participant was marking notes, highlighting measures, or something else altogether. The participant tried tapping, double tapping, tapping the tempo of the music, and finally writing on the screen for making notes.

#### **Participant #4**

Participant 4 completed the tasks without encountering many errors, but there was some frustration caused by the interface. He successfully completed Task 1 because he realized the music piece was a solo piece, but he was not sure if that would go under “School” too since the scenario was set in the context of school. When he started Task 2, he was unsure where the music piece would go. He looked for that under “Solo” but didn’t find it. Then he tried “Archive” and found the piece. The wording of “Archive” was not obvious to the participant and he didn’t realize archive stored pieces that haven’t been played for a while. The participant didn’t know how to use the playback feature and mentioned it was not displayed on the interface. However, he touched the music intuitively and the “playback” button popped out. He realized the playback feature would be enabled once a certain part of music of was selected. The participant finished Task 3 fluently by locating the “Group” button correctly and following the right path. He had many experiences with online collaboration (i.e., crating groups and inviting people to join) and that helped he construct the cognitive model when he was performing the task.

#### **Participant #5**

Participant 5 had a few issues while testing our prototype and overall felt pretty neutral to the interface. The first task proved to be fairly straight forward for him, he recognized that he was playing solo and immediately picked the piece he wanted to play. Nothing in this scenario stood out to him as exceptionally easy or difficult. He mentioned that touching the screen for the page turn was not as intuitive to him, and he expected the device to automatically flip the page for him.

Task 2 proved to be slightly more challenging. When first presented with the scenario of playing an old song, he was confused as to why it did not show up in the solo pane on the home screen. It took him a couple seconds to notice the archive bar at the bottom of the screen, and pressed it out of curiosity. He was then presented with the scrollable list of archived pieces, which he then proceeded to scroll through and find the Mario piece. The next part of the task asked him to playback a certain section of the piece to get a feel of what it’s supposed to sound like. This left the participant completely stumped, as he was presented with a piece without any controls. It did not occur to him to touch a particular part of the music or even the screen itself. He expected that there would be some playback controls at the bottom or side of the screen that he could use to playback the music. Once he was shown that touching the screen would bring up a playback button, he mentioned that he liked the fact that the buttons appear only when prompted by the user. However, he had no way of knowing that unless there was a tutorial or help functionality.

The last task went by smoothly, with the participant quickly picking up on the flow required for someone to join a group. He wasn't sure about annotating the piece, but that was largely due to his inexperience with sheet music; he didn't know what some of the dynamics on the sheet meant.

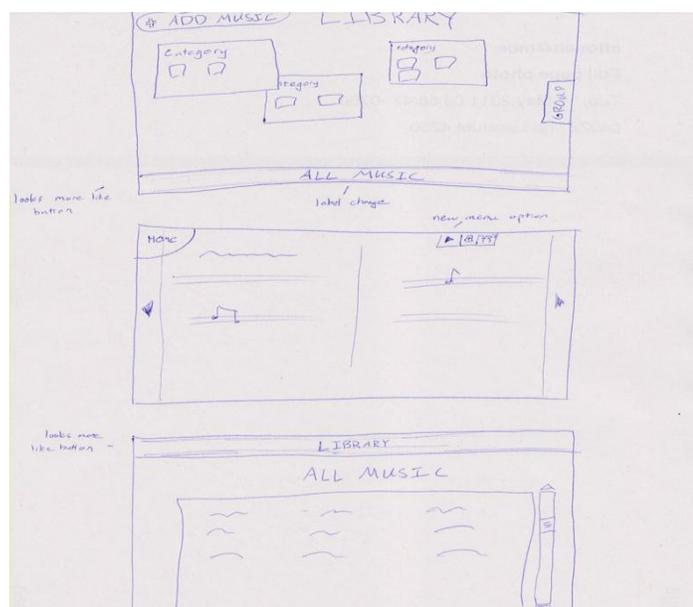
## Interface Revision Sketches

Somehow we need to inform the user that using the pen on the device does something different than tapping on the device. We can do this either by providing a first-time use instruction.

An interesting result of our test is that half of our musicians quickly figured out to tap on the page to play music, and the other half searched through the menus and was stumped. We need to include a playback button in the menu so that people can choose either method.

Naming one of the categories “Solo” in the paper prototype confused some users. Changing the name to something else like “For Weddings” would have been a more accurate way that people would use the device. This is just for the paper prototype though, and not something we have to deal with in the final revision.

Many participants had trouble finding the archive or realizing that is where old music is stored. To make it more obvious, we want to change the name to “All Music”, similar to how Google uses the phrase “All Mail” instead of archive. We also want to make it visually stand out from the background so people realize it is actually there. When we get to high fidelity, we can do more with the shading and texture.



## Summary Discussion

Overall, we were very pleased with our results. Our prototype definitely has some issues that could improve on, but we have made significant advancements to make the interface simpler and cleaner. As a group, we felt that our older interface had too much going on at the very onset of the home screen, and that wading through levels of menus was not the way we wanted users to interact with the device. Our goal is to ease the burdens of physical sheet music as well as add some compelling features which could let musicians put more effort into their passion. One thing we learned from the testing process was that some things that are obvious to some users are completely missed by other users. We were able to experience this first hand, through the observations of the participants and how they thought about interacting with the device. Some of the interactions that we thought as natural took some thinking on the participants' part when they were using the prototype.

## Appendix

### Appendix A: Task Booklet

#### Task booklet for participants

##### Task Booklet

Participant #: \_\_

Date:

##### Introduction

Welcome to University of Washington and human Computer Interaction usability study; we thank you for taking the time to participate. We have invited you here because we believe the best way to design products is by working with you, the user. As you work with the Virtuoso Virtual Sheet Music System, we learn how you expect it to work and which features are difficult to understand.

Remember that we are testing the prototype on you, not testing you on the prototype. If you can't figure something out, don't blame yourself. We are not testing your abilities and anything you do is never a mistake. The choices you make, the problems you encounter, and the things you say provide very valuable feedback to us and allow us to make recommendations that will improve the quality of Virtuoso.

You are under no obligation to complete the session. If you feel uncomfortable in any way, please let us know. If you find any of the tasks in this study too difficult to complete, please feel free to tell us and we can move on to the next task.

During this session you will be performing some tasks using the computer in front of you. You might have questions from time to time and you should feel free to ask them. I might not always respond, but it is fine to ask. Please remember to talk out loud as you attempt each task. At the end of each task, I may ask you to answer a few questions. Feel free to add any comments and thoughts you have and please do not censor yourself. What you have to say is crucial so that we can improve the prototype you will be working with.

When you are done reading this page, let us know and we will begin.  
**(DO NOT TURN THE PAGE UNTIL INSTRUCTED TO DO SO)**

# Setting the Context...

You are a musician and practices very often with sheet music. Your friend suggests that you use a new product called Virtuoso that digitizes sheet music and has helpful features to make practicing, performing experiences more interesting and effective. Your new life with Virtuoso starts...

**(Please turn the page and begin with Task 1)**

# **Task 1—Play a music piece**

You are at your Senior Recital and are requested to play the music piece **Twinkle Twinkle Little Star** from beginning to end. You are very familiar with the song because you practice very often.

**Please remember to speak aloud what you are thinking as you answer these questions.**

**STOP! Do not turn the page until asked to do so.**

## **Task 2—Practice an unfamiliar song**

You haven't played the **Mario Theme Song** in a long time and forget how it goes. You get stuck in the middle of practicing because you don't get the rhythm. You want to hear how the second ending of the piece should sound.

**Please remember to speak aloud what you are thinking as you answer these questions.**

**STOP! Do not turn the page until asked to do so.**

## **Task 3—Play collaboratively with friends**

Your friend Jasmine is practicing a piece with her friends. She doesn't know where to play soft or loud. She invites you to join her group and play with her. You help her figure out how to play by writing in dynamics.

**Please remember to speak aloud what you are thinking as you answer these questions.**

**STOP! Do not turn the page until asked to do so.**

## Appendix B: Post-Test Questionnaire

### POST-TEST QUESTIONNAIRE

Participant # \_\_\_\_\_

Date: \_\_\_\_\_

#### Usability Inventory

**Instructions: Check the box of the statement you agree with most.**

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. It was easy to interact with Virtuoso Virtual Sheet Music System.					
2. The required steps were as I expected.					
3. Learning to use Virtuoso is easy.					
4. It is easy to get started on using the device.					
5. I would buy this device (with this interface) if it existed.					
6. It takes too long to figure out the button functions.					
7. I sometimes wonder if I'm touching the correct button.					

8. The button labels are clear and understandable.				
9. I feel in command of the device(interface) when I'm using it.				
10. There is never enough information on the screen when I need it.				
11. Using the device is frustrating.				
12. I felt tense at times when using the device.				
13. There are too many steps required to get something to work.				
14. New users will find this device easy to use.				
15. The organization of menus and information seems logical.				
16. It is obvious that my needs have been fully taken into consideration.				
17. Each click or tap on the screen did what I expected.				
18. The interface has an attractive				



## User Feedback

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Instructions: Provide feedback to the following questions. If you need more space, please feel free to write on the back of the page.

1. What was MOST DIFFICULT to do or understand?

2. What was EASIEST to do or understand?

3. What are your impressions of the design and features of Virtuoso?

4. Do you have any design or feature suggestions?

## Appendix C: Test Results

### Test Results

#### Participant #1

Age:

Gender:

Department you're in (if you are a student):

What year you are in:

How long you've been practicing music:

How often do you practice?

Explain your music practicing environment:

What types of technology do you use in daily life?

Which do you use most frequently?

How often do you use them?

TASK 1 - Play a music piece

TASK 2 - Practice an unfamiliar song

TASK 3 - Play collaboratively with friends

## Appendix D: Raw Data

### POST-TEST QUESTIONNAIRE

Participant #   1  

Date:   5/14  

### Usability Inventory

**Instructions: Check the box of the statement you agree with most.**

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. It was easy to interact with Virtuoso Virtual Sheet Music System.				I	
2. The required steps were as I expected.			I		
3. Learning to use Virtuoso is easy.			I		
4. It is easy to get started on using the device.				I	
5. I would buy this device (with this interface) if it existed.				I	
6. It takes too long to figure out the button functions.				I	
7. I sometimes wonder if I'm touching the correct button.					I

8.	The button labels are clear and understandable.		I		
9.	I feel in command of the device(interface) when I'm using it.				I
10.	There is never enough information on the screen when I need it.	I			
11.	Using the device is frustrating.			I	
12.	I felt tense at times when using the device.		I		
13.	There are too many steps required to get something to work.		I		
14.	New users will find this device easy to use.				I
15.	The organization of menus and information seems logical.			I	
16.	It is obvious that my needs have been fully taken into consideration.			I	
17.	Each click or tap on the screen did what I expected.	I			
18.	The interface has an attractive presentation.				I
19.	It is easy to move from one task to another.				I

20.	The interface was awkward.			I	
21.	The interface feels restrictive.		I		
22.	The buttons were clearly labeled.	I			
23.	The interface is likable.				I
24.	The interface is easy to use.			I	

## User Feedback

---

Instructions: Provide feedback to the following questions. If you need more space, please feel free to write on the back of the page.

1. What was MOST DIFFICULT to do or understand?

Some things weren't labeled (the buttons on the top for sheet music) or intuitive ("Archive").

2. What was EASIEST to do or understand?

3. What are your impressions of the design and features of Virtuoso?

Bit difficult when first using, but easy to use afterwards.

4. Do you have any design or feature suggestions?

Labelling some of the buttons instead of using only images

### POST-TEST QUESTIONNAIRE

Participant #   2  

Date:   5/17/2011  

### Usability Inventory

**Instructions: Check the box of the statement you agree with most.**

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
25. It was easy to interact with Virtuoso Virtual Sheet Music System.				x	
26. The required steps were as I expected.				x	
27. Learning to use Virtuoso is easy.				x	

28.	It is easy to get started on using the device.				x	
29.	I would buy this device (with this interface) if it existed.				x	
30.	It takes too long to figure out the button functions.				x	
31.	I sometimes wonder if I'm touching the correct button.		x			
32.	The button labels are clear and understandable.			x		
33.	I feel in command of the device(interface) when I'm using it.				x	
34.	There is never enough information on the screen when I need it.	x				
35.	Using the device is frustrating.				x	
36.	I felt tense at times when using the device.		x			
37.	There are too many steps required to get something to work.	x				

38.	New users will find this device easy to use.				x	
39.	The organization of menus and information seems logical.			x		
40.	It is obvious that my needs have been fully taken into consideration.				x	
41.	Each click or tap on the screen did what I expected.				x	
42.	The interface has an attractive presentation.				x	
43.	It is easy to move from one task to another.				x	
44.	The interface was awkward.	x				
45.	The interface feels restrictive.	x				
46.	The buttons were clearly labeled.			x		
47.	The interface is likable.			x		
48.	The interface is easy to use.				x	

## User Feedback

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Instructions: Provide feedback to the following questions. If you need more space, please feel free to write on the back of the page.

1. What was MOST DIFFICULT to do or understand?

Playback is clunky

2. What was EASIEST to do or understand?

After figuring out how to do things, it is easy in general to use the device

3. What are your impressions of the design and features of Virtuoso?

Sync is very cool

4. Do you have any design or feature suggestions?

Swipe to turn page, Colored note-taking

## POST-TEST QUESTIONNAIRE

Participant #   3  

Date:   5/17/2011  

### Usability Inventory

Instructions: Check the box of the statement you agree with most.

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
49. It was easy to interact with Virtuoso Virtual Sheet Music System.					<input checked="" type="checkbox"/>
50. The required steps were as I expected.					<input checked="" type="checkbox"/>
51. Learning to use Virtuoso is easy.					<input checked="" type="checkbox"/>
52. It is easy to get started on using the device.					<input checked="" type="checkbox"/>
53. I would buy this device (with this interface) if it existed.		<input checked="" type="checkbox"/>			
54. It takes too long to figure out the button		<input checked="" type="checkbox"/>			

functions.					
55. I sometimes wonder if I'm touching the correct button.		x			
56. The button labels are clear and understandable.			x		
57. I feel in command of the device(interface) when I'm using it.				x	
58. There is never enough information on the screen when I need it.	x				
59. Using the device is frustrating.		x			
60. I felt tense at times when using the device.	x				
61. There are too many steps required to get something to work.	x				
62. New users will find this device easy to use.				x	
63. The organization of menus and information seems logical.				x	
64. It is obvious that my needs have been fully taken into consideration.				x	

65.	Each click or tap on the screen did what I expected.		x		
66.	The interface has an attractive presentation.			x	
67.	It is easy to move from one task to another.				x
68.	The interface was awkward.		x		
69.	The interface feels restrictive.		x		
70.	The buttons were clearly labeled.		x		
71.	The interface is likable.			x	
72.	The interface is easy to use.			x	

## User Feedback

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Instructions: Provide feedback to the following questions. If you need more space, please feel free to write on the back of the page.

1. What was MOST DIFFICULT to do or understand?

Figuring out Group button

2. What was EASIEST to do or understand?

Basic options, playing back

3. What are your impressions of the design and features of Virtuoso?

Pretty good

4. Do you have any design or feature suggestions?

No

**POST-TEST QUESTIONNAIRE**

**Participant #** \_\_\_4\_

**Date:** \_\_\_\_\_5/14\_

**Usability Inventory**

**Instructions: Check the box of the statement you agree with most.**

<b>Statement</b>	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Strongly Agree</b>
73. It was easy to interact with Virtuoso Virtual Sheet Music System.			y		

74.	The required steps were as I expected.			y	
75.	Learning to use Virtuoso is easy.			y	
76.	It is easy to get started on using the device.		y		
77.	I would buy this device (with this interface) if it existed.			y	
78.	It takes too long to figure out the button functions.	y			
79.	I sometimes wonder if I'm touching the correct button.				y
80.	The button labels are clear and understandable.	y			
81.	I feel in command of the device(interface) when I'm using it.		y		
82.	There is never enough information on the screen when I need it.			y	
83.	Using the device is frustrating.	y			
84.	I felt tense at times when using the device.		y		

85.	There are too many steps required to get something to work.	y			
86.	New users will find this device easy to use.		y		
87.	The organization of menus and information seems logical.			y	
88.	It is obvious that my needs have been fully taken into consideration.			y	
89.	Each click or tap on the screen did what I expected.			y	
90.	The interface has an attractive presentation.			y	
91.	It is easy to move from one task to another.	y			
92.	The interface was awkward.	y			
93.	The interface feels restrictive.	y			
94.	The buttons were clearly labeled.			y	
95.	The interface is likable.			y	
96.	The interface is easy to use.			y	

## User Feedback

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Instructions: Provide feedback to the following questions. If you need more space, please feel free to write on the back of the page.

1. What was MOST DIFFICULT to do or understand?

The categories of the music. How is "School" defined, for example.

2. What was EASIEST to do or understand?

Touch and tap on everything.

3. What are your impressions of the design and features of Virtuoso?

It's something I would need if it truly exists.

4. Do you have any design or feature suggestions?

The wording of the button should be more intuitive.

## POST-TEST QUESTIONNAIRE

Participant # \_\_5\_\_

Date: \_\_5/16/2011\_\_

### Usability Inventory

Instructions: Check the box of the statement you agree with most.

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
97. It was easy to interact with Virtuoso Virtual Sheet Music System.			x		
98. The required steps were as I expected.			x		
99. Learning to use Virtuoso is easy.			x		
100. It is easy to get started on using the device.			x		
101. I would buy this device (with this interface) if it existed.			x		
102. It takes too long to figure out the button functions.			x		
103. I sometimes wonder if I'm touching the correct button.				x	
104. The button labels are clear and understandable.		x			

105. I feel in command of the device(interface) when I'm using it.			x		
106. There is never enough information on the screen when I need it.		x			
107. Using the device is frustrating.			x		
108. I felt tense at times when using the device.			x		
109. There are too many steps required to get something to work.		x			
110. New users will find this device easy to use.			x		
111. The organization of menus and information seems logical.			x		
112. It is obvious that my needs have been fully taken into consideration.			x		
113. Each click or tap on the screen did what I expected.			x		
114. The interface has an attractive presentation.		x			
115. It is easy to move from one task to another.		x			
116. The interface was awkward.			x		

117.	The interface feels restrictive.		x			
118.	The buttons were clearly labeled.		x			
119.	The interface is likable.			x		
120.	The interface is easy to use.			x		

## User Feedback

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Instructions: Provide feedback to the following questions. If you need more space, please feel free to write on the back of the page.

1. What was MOST DIFFICULT to do or understand?

Group use was unclear, since there was a group tab as well as church/school panes on the home page. The group tab makes sense, it just seemed weird that the other panes are not a part of the group tab.

2. What was EASIEST to do or understand?

Task 1

3. What are your impressions of the design and features of Virtuoso?

Design could be improved, not clear enough. No need to have play button appear when screen is touched, should be at the bottom or somewhere always visible

4. Do you have any design or feature suggestions?

Top should have tabs for various functionality instead of grouping by blocks.  
Device should somehow turn the page for you, easier than actually touching the screen.  
Large amount of music should be easier to navigate through, maybe through different forms of grouping.