## **PickUpPiano Heuristic Evaluation**

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## Issues concerning the introductory information screens:

(This consists of pressing the right arrow until the user reaches the screen where they can start playing lessons)

- 1) It is not necessary to display the piano at the very beginning since at first the user is only reading the introductory messages and does not understand the importance of the piano.
  - Relevant heuristic: learnability, information overload in other words, allowing the user to click on the piano before he/she has finished reading the 'tutorial' screens distracts and confuses the user by presenting a part of the interface he/she does not fully understand.
  - Severity: Minor
  - <u>Possible solution:</u> consider placing the introductory messages in an overlay with the background greyed out.
- 2) If a user has already read the introductory help messages, they need a way to skip the messages altogether and go straight to the lessons.
  - Relevant heuristic: Efficiency
  - Severity: Minor
  - <u>Possible solution</u>: Putting the help messages in an overlay with the buttons "next" and "close" would allow an easy way for the users to close the help messages while also solving the previously-discussed usability issue. However, the user would need a way to view the help messages again if desired.
- 3) The "back" button on the first screen has the affordance of click-ability but is not actually clickable as we are at the beginning of the help messages.



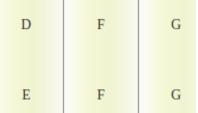
The same issue applies to the "forward" button when we are at the end of the help messages.

- Relevant heuristic: learnability, misleading information scent.
- Severity: Minor
- <u>Possible solution:</u> hide the back button entirely from the first screen or deactivate it more obviously. The same applies for the forward button when the user is at the final panel.
- 4) When the help message says "hit Begin", I searched for a button that said "begin" but could not find it. It was not obvious that I had to hit next to see the begin button and the highlighted note.
  - Relevant heuristic: Learnability (because I spent a few moments searching for 'begin' unsuccessfully), and safety, because at first I assumed the reason I couldn't find the button was due to a bug.
  - Severity: Minor
  - <u>Possible solution</u>: Clarify that the message is talking about buttons on the next screen. Including screenshots of the button might also help.

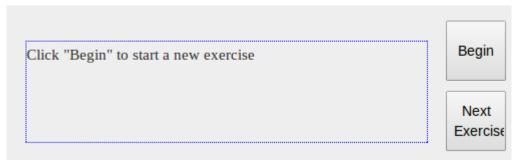
## Issues concerning the playing of lessons:

(This refers to the screen the user arrives at after going through all the introductory information screens)

- 5) I like that users can use both the keyboard and the mouse to press keys. Good job getting the piano to work! That must have been tedious.
  - Relevant heuristic: User control, efficiency
- 7) I would distinguish the letters indicating the musical note from the letters indicating the keyboard key that plays the note, because it is initially easy to confuse them.



- Relevant heuristic: Learnability, efficiency (different things should look different; does not pass the squint test). Also information overload, as the series of letters scattered across the keys is a little overwhelming at first.
- <u>Severity:</u> Minor, as your target user population can probably figure out which are musical keys and which are keyboard keys.
- <u>Possible solution:</u> Put the letters for the keyboard keys on top of an icon that looks like a keyboard key, or put them in a different colour.
- 8) After users press "Begin", the message saying "Click begin to start a new exercise" should go away.



- Relevant heuristic: user feedback
- Severity: Minor
- 9) While users are playing notes, the message should not be "nope, try again" but instead should be something like "correct so far..."; it should only display "nope, try again" when the user makes an error.
  - Relevant heuristic: User feedback, safety (the user might assume there is a bug in the code)
  - · Severity: Major
- 10) It took me some time to realize that in order to pass the exercise, I have to play the correct sequence of notes at some point, and not necessarily immediately after pressing "Listen again / Begin". This is a nice feature (great user control!) but is not immediately obvious.
  - Relevant heuristic: Learnability
  - Severity: Cosmetic
- 11) Users should have the option to redo an exercise even if they pass it, and to go to the previous exercise (there is currently only a 'Next' button).
  - Relevant heuristic: User control.

- Severity: Major
- 12) Users should be allowed to select any exercise they want by double clicking on the list in the right (as of now, double clicking on an exercise in the list on the right does not appear to select the exercise for playing, because the "Listen again" button stays the same).
  - Relevant heuristic: User control, or possibly user feedback since double-clicking does not appear to do anything even if you had intended it to.
  - Severity: Major
- 13) I liked the overlay of "Listen!", because it provides good feedback that sounds should be audible in case the user has sound muted (allows errors to be discovered; helps safety).
  - Relevant heuristic: User feedback, safety.
- 14) However, the "listen!" overlay appears only the first time user presses begin, but not when the user presses "listen again". I think this is a negative because it does not help with the error-prevention method described in the previous point (eg: if a user is trying to debug their sound and presses 'listen again', and the user does not hear a sound, the user is uncertain whether it is a problem with the website or a problem with their sound system).
  - Relevant heuristic: User feedback, safety
  - Severity: Minor
- 15) There is a lot of unused space on the main control panel. You could put this space to good use by making the buttons bigger and increasing the spacing between elements. For instance, the top of the piano is very close to the line delineating the bottom of the control panel, and visually tends to be grouped with it. Increasing the separation of the piano from the control panel would avoid this.
  - Relevant heuristic: Graphic design
  - Severity: Minor
- 16) The text on the "Next exercise" button is also not contained within the button on Chrome.
  - Relevant heuristic: Graphic design
  - Severity: Major

## Issues concerning the Settings panel:

(This refers to the overlay that appears when the user presses the settings button)

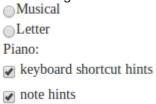
- 17) The overlay takes too long to appear and disappear
  - Relevant heuristic: User feedback (it should be prompt)
  - Severity: Minor
- 18) The left edge of the section labels in the settings panel are not aligned with the left edge of the dropdown menu/checkboxes/radio buttons.

General

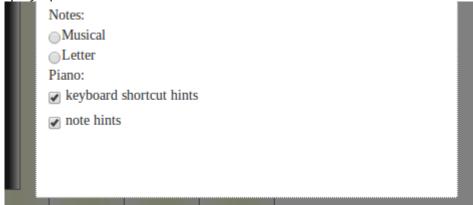
Show recording tool

- Relevant heuristic: Graphic design (the left-edges should be aligned to make the layout look less messy.
- <u>Severity</u>: Minor
- 19) The settings panel is not balanced as all the elements are pushed to the left with a lot of whitespace on the right.
  - Relevant heuristic: Graphic design (balance is important to make an interface look good)

- Severity: Minor
- 19) The section labels in the settings panel are black on grey which is relatively hard to read.
  - Relevant heuristic: Graphic design (contrast between background and foreground is important for text).
  - Severity: Minor
- 20) The checkboxes and radio buttons are not aligned with the baseline of the text next to them.



- Relevant heuristic: Graphic design (if the baselines are not aligned, the text looks messy).
- · Severity: Minor
- 21) There is a lot of dead whitespace at the bottom of the settings overlay that could be put to better use. For example, the settings overlay could use more whitespace between its items, such as between the display options for "Notes:" and "Piano:".



- Relevant heuristic: Graphic design (whitespace between sections is important, don't have excess whitespace unbalancing the display)
- Severity: Minor
- Possible solution: Twitter Bootstrap!