Heuristic Evaluation of [halfstep]

1. Problem

Half step is an app that helps users learn music by providing smaller goals, progress tracking, and peer-to-peer support in the learning process.

2. Violations Found

1. **H1 / Severity 3 / Found: A**
   In news section, it says, "Stefan achieved Level 1". It's not entirely clear what the level system is.
   Fix: Clarify level system, what that means, when a user moves from one level to another

2. **H1 / Severity 4 / Found: A, D**
   Functional of the microphone/record button isn't clear. Does it record the player? Or is it just a "I've finished playing button".
   Fix: If it's the former - how are you going to implement that and what are you going to do with the recordings? For the latter, why then do the screens following this one have a similar "tap the button" UI?

3. **H3 / Severity 2 / Found: A, D**
   Is the back button necessary for the goals and friends screens? It seems to take away from the importance of the medium/complex task by doing so. I could see users getting confused with the back button when you haven't entered a "nested" screen as in the goals/friends screens.
   Fix: Only have back button when necessary (you've entered a nested-screen)

4. **H3 / Severity 4 / Found: A, B, C, D**
   It's not clear how one actually goes about doing the medium task of adding a new goal (it seems like users have no choice at all in the matter). I see that they become available at some point, but how does a user actually choose which goals they want to learn or not?
   Fix: Perhaps give users more choice in their learning process!

5. **H5 / Severity 1 / Found: A**
   Make sure there's a two-step process for deleting a friend (right now you just have an X, but make sure a user wants to delete that friend)
   Fix: 2 step delete process (Are you sure you want to delete this?)

6. **H6 / Severity 2 / Found: A, B, D**
   The icons for notes/applause in the news section aren't intuitive
   Fix: Consider spreading the layout more to allow for more space and have an options button (like this icon: …) that when clicked allows a user to write a note or applaud

7. **H7 / Severity 2 / Found: A**
   Your steps right now go from cd -> cde -> cdef. From cde you need to tap 4 different buttons to "unlock" cdef . This seems to me more complicated than actually learning the new scale (I could be misinterpreting the music terminology, though)
   Fix: Reduce number of "taps" and screen a user needs to go through to move to the next scene. Consider reducing the "bubble popping" screen to one screen

8. **H7 / Severity 2 / Found: A, C**

The notifications on the news section in the friends tab needs to be grouped more logically. If every time Stefan practices for N minutes you get a news notification, the newsfeed will be saturated. Consider grouping notifications either by person or category (like facebook does)
Fix: Consider grouping notifications like Facebook does, or conduct more needfinding as to what kinds of notifications users most want to see.

9. **H8 / Severity 2 / Found: A, C, D**
Colors of icons in learn/goal screen aren't intuitive - yellow as completed, light blue as current (I think this one makes sense) and then the dark blue as locked.
Fix: I'd consider adding a lock icon over the locked screen, and consider a different yellow

10. **H8 / Severity 1 / Found: A**
The colors on the "play these notes" feels awkward - the process is supposed to be exciting, but the grayscale makes me not want to practice.
Fix: Add more colors to the screen, or maybe consider merging this screen with the next one to add more "delight" aspect

11. **H8 / Severity 2 / Found: A, B**
I think you said in class that the "progress" meters in the goals screen is never going to be full. How do you think this is going to make the user feel?
Fix: I like the progress bar, but maybe consider having it filled. I know you said that people are never done practicing major scales, but considering that you can finish (e.g.) major scales in the learn section, I think it would make sense to do the same in the goals section for consistency.

12. **H10 / Severity 3 / Found: A, B, C, D**
In the friend section, what does the book icon do?
Fix: Clarify the book icon.

13. **H10 / Severity 1 / Found: A, B**
Goal screen explanation might not be necessary. I think if you address the issue of using color/design to indicate which icons are locked/in progress/completed, you won't need this description
Fix: Either give more thought to the color scheme, or better, have a lock icon over the locked bubbles and a check icon over the completed icons.

14. **H7 / Severity 3 / Found: B, C**
On top of the learn tab, there is a drop down menu to select goals. It might be redundant because users can also select from the goals tab. Also, it could become cluttered as more goals are added and it becomes infinitely larger.
Fix: Prioritize drop down menu contents or move drop down menu to be more standardized with navigation of other screens

15. **H8 / Severity 1 / Found: C**
In the learn tab, the lines connecting the nodes may not be as aesthetically pleasing as possible. It's tricky to draw these lines in a clean and consistent way.
Fix: Maybe replace the "note" icon on all the nodes with the actual goal (so on the circle it would say "cdef" or something).

16. **H4 / Severity 2 / Found: B**
The organization of the two main task screens are very different; the first screen is linear, with clearly defined steps and divergences, while the goals screen just has a list of tasks without

defined relationship to each other. The difference could come across as confusing, since one seemed very guided and grouped by progression, and the other didn't, and the user may not know if/how the goals are organized or related. Additionally, these two screens are functionally the same. This could be fixed by making the goals screen linear by content groups (e.g., must complete major scales before minor scales are unlocked, but show this as a linear and easily visualizable connection).

17. **H6 / Severity 2 / Found: B**
Users do not have apparent access to their own practice logs of when, what, and how long they practiced, requiring the user to remember what they may have had trouble with or where they were. This could be fixed by adding a personal practice log feature, or a notification system that puts a note on frequently error-prone skills.

18. **H10 / Severity 1 / Found: B**
Assuming that users have at least some gaps in musical knowledge, if not complete beginners, using musically jargonistic language without explanation as to what it means or why it is important could cause confusion/discourage users. This could be fixed by providing links to outside resources explaining what tasks are and why they are important.

19. **H8 / Severity 2 / Found: D**
On the 'goals' screen, the paragraph of info at the top is meh. I wouldn't have the patience to read through that (especially with the current font/color).
Fix: Have a NUX experience, a flow for the first time a user visits this screen that walks them through what everything means/how to use it. Or, just a pop-up NUX with instructions, the same info from the paragraph but broken up into more readable segments.

20. **H10 / Severity 2 / Found: D**
When you first open up the main screen, there is no NUX or help on what everything means and what the user should do. The graph thing with the lines connecting the tasks makes sense once you hear the explanation, but when you first open it up it's unclear why it's formatted that way.
Fix: Add NUX.

21. **H4 / Severity 1 / Found: D**
On the second tab, the title of the screen says 'friends' and so does the middle tab beneath it. It says friends in three places on the screen. The title/bottom tab may not represent its functionality comprehensively.
Fix: change the name of the tab

[…list violations here with a blank line between each -- number from 1 to n, where n is total # of violations]

3. Summary of Violations

Category	# Viol. (sev 0)	# Viol. (sev 1)	# Viol. (sev 2)	# Viol. (sev 3)	# Viol. (sev 4)	# Viol. (total)
H1: Visibility of Status				1	1	**2**
H2: Match Sys & World						**0**

			1		1	2
H3: User Control			1		1	2
H4: Consistency	1		1			2
H5: Error Prevention		1	1			2
H6: Recognition not Recall			1			1
H7: Efficiency of Use			2	1		3
H8: Minimalist Design		2	3			5
H9: Help Users with Errors						0
H10: Documentation		2	1	1		4
Total Violations by Severity		5	8	3	2	21
Note: check your answer for the green box by making sure the sum of the last column is equal to the sum of the last row (not including the green box)						

4. Evaluation Statistics

Severity / Evaluator	Evaluator A	Evaluator B	Evaluator C	Evaluator D	Evaluator E
sev. 0	0%	0	0	0	
sev. 1	23%	2	1	17%	
sev. 2	46%	4	2	50%	
sev. 3	15%	2	2	33%	
sev. 4	15%	1	1	100%	
total (sev. 3 & 4)	30%	3	3	60%	
total (all severity levels)	46%	32%	21%	43%	

*Note that the bottom rows are *not* calculated by adding the numbers above it.

5. Summary Recommendations

Overall, we think that the prototype will run into most of its UX difficulties once you build out all the features of your app. From what you have there, the following are the most poignant issues we'd suggest you focus on:
- Clarify and give more thought to different functionalities of your prototype (icons, levels, colors, drop down menu on learn screen, etc.)
- Evaluate how accurately your prototype reflects your tasks, or, revise your tasks!
- Make sure your friends news feed accomplishes its purpose of helping users be inspired.
- Rethink the connection between your learn and goal screens, figure out what aspects are necessary and which are not
- Reconsider the tap-count required to move to a next goal, and consider if all of the screens with blue buttons are necessary, and what the purpose of each one is

6. Additional Suggestions (extra category)

- You didn't implement the sending notes/applause interface or the interface to receive that kind of information so I can't comment on that, but it would have been nice to provide more info on how a user would receive the messages/applause
- How does a user build their profile? Unclear from your prototype.
- With the current learn screen layout, a user will have to scroll through a lot of icons on the learn page once the goal requires, say, 15 steps. The current layout shows the first (and presumably smallest) goal that can be achieved in your app, and the layout already doesn't fit in the screen. I'd be concerned about more complicated goals where the layout gets super complicated. Suggestions is to either focus on how you can integrate the goals tab and the learn tab a bit better (they are very similar, just one is a narrowed in version of the other) and would definitely make sure your app automatically focuses in on the in progress goals without scrolling.
- I think your news section might not entirely match your intended goal with your complex task. This is for 2 reasons: 1) Is a user likely to be inspired by another's progress, or is the key the "applause" and "note" buttons that allow you to help inspire *others* (which is different from your stated complex task). 2) How do they go about "finding"? It doesn't seem like there's a discovery process, seems to be that you can only friend people that you know.
- No real error messages in your prototype, but not a lot of room for user error right now. Definitely make sure you are careful about errors on user input once you implement that.
- More info on the readme for how to use the app once you build out all the features!
- I really like that the tabbed layout makes the simple, medium, complex tasks very easy to intuit!
- Would love to see access to own practice log and progress, as well as profile!
- Use more consistency in symbols and consolidate for their meaning

Severity Ratings

0 - don't agree that this is a usability problem
1 - cosmetic problem
2 - minor usability problem
3 - major usability problem; important to fix
4 - usability catastrophe; imperative to fix

Heuristics

H1: Visibility of System Status
- Keep users informed about what is going on

H2: Match Between System & Real World
- Speak the users' language
- Follow real world conventions

H3: User Control & Freedom
- "Exits" for mistaken choices, undo, redo
- Don't force down fixed paths

H4: Consistency & Standards

H5: Error Prevention

H6: Recognition Rather Than Recall
- Make objects, actions, options, & directions visible or easily retrievable

H7: Flexibility & Efficiency of Use
- Accelerators for experts (e.g., gestures, kb shortcuts)
- Allow users to tailor frequent actions (e.g., macros)

H8: Aesthetic & Minimalist Design
- No irrelevant information in dialogues

H9: Help Users Recognize, Diagnose, & Recover from Errors
- Error messages in plain language
- Precisely indicate the problem
- Constructively suggest a solution

H10: Help & Documentation
- Easy to search
- Focused on the user's task
- List concrete steps to carry out
- Not too large