## **Heuristic Evaluation of eMotion**

## 1. Problem/Prototype Description

eMotion by Team Movement is an application that helps users track their workouts in a more reflective way to encourage mindfulness and empowerment rather than over-obsession with numerical values.

## 2. Violations Found

- H1: Visibility of System Status / Severity: 1 / Found by A, B
  - o Task: 1
  - Problem Description: No confirmation of a completed movement being saved to a specific location
  - Rationale: After ending my movement, I found it useful that there is the confirmation and naming screen to show me that my movement was completed; however, after completing the entry, there is no visual indicator that the tab on the left would be updated with the information I entered
  - Fix: Add a minor confirmation notification to notify the user of where to access entries
- H1: Visibility of System Status / Severity: 1 / Found by B
  - Task: 1
  - Problem Description: No confirmation of whether notes were properly submitted, or where they were filed to
  - Rationale: After entering a note, the screen navigates back to the "log your eMotions" screen, but does not provide any indication that the note was written anywhere, or where to find the note later
  - Fix: Add a pop-up describing where to find notes
- H1: Visibility of System Status / Severity: 1 / Found by A
  - o Task 2
  - Description: User cannot see what movements are private / shared, and where a movement is stored based on what option they choose.
  - Rationale: After selecting if the movement is private vs shared, the user have no way to see what exercises they have that are private or shared
  - Fix: Add confirmation or lead the user to a screen where the privated / shared movements are
- H1: Visibility of system status / Severity: 1 / Found by A
  - o Task 2
  - Description: Is it required for me to log emotions before adding notes? It seems like it is because the actions are separated on different screens.
  - Rationale: If there is an action required before another, that should be better communicated to the user.

- Fix: Either make the different actions on different screens, or add a message if the user tries to tap the add note button
- H1 Visibility of system status / Severity: 3 / Found by C
  - Task: Complete a "Freestyle Movement"
  - Description: In the middle of a movement, the screen feels very static and it feels unclear that there's a motion going on.
  - Rationale: Given that the app is focused on movement, I think the screens within movements should be dynamic in some way to signify that something's going on.
  - Fix: A pulsating orb instead of a static circle of color? (Although I realize this is probably hard to do in Figma haha)

- H2: Match between System and World / Severity: 2 / Found by A
  - o Task 1
  - Description: Feelings that do not encompass the full spectrum of human emotion may make feel people feel like they are put in a box.
  - Rationale: Humans don't only feel one emotion at a time. The "other" text button feels like an afterthought.
  - o Fix: Use scales with certain feelings instead of being limited to one feeling.
- H2: Match between System and Real World / Severity: 2 / Found by A, B
  - Task: 1
  - Problem Description: Submitting a note is on the left, and canceling the note is on the right
  - Rationale: Typically, cancel buttons are located on the left and submit buttons on the right; having the buttons flipped will force users to read your buttons more carefully, interrupting the flow of the app and possibly causing mistakes.
     Likewise, this applies to the locations of "next motion" and "end movement" buttons (elaborated more in other violation)
  - Fix: Switch the ordering of buttons
- H2: Match between System and World / Severity: 1 / Found by A, C, D
  - o Task 1
  - Description: "New Movement" may not be the best wording for starting a workout.
     Motion and Movement are also very similar
  - Rationale: In currently known exercise tracking apps, a button with wording like this may be for adding a new exercise, or tracking an exercise I've already finished. This does not match the goal of these words in the app.
  - Fix: Change the wording in the beginning to introduce new wording to the user, or guide them once they first onboard (tell them what different words mean!)
- H2: Match between system and the real world / Severity: 2 / Found by A
  - o Task 2
  - Description: When viewing someone else's workout, one can see the motions and the eMotions. What use is this to the original user? If we're basing this on feeling, wouldn't users only want to do workouts where the end result is "happy" or "joyful", etc? What do the colors even mean?

- Rationale: Wonder how users view the eMotions on the platform vs how they would actually use them in real life
- Fix: Research and make changes based on them
- H2: Match between System and Real World / Severity: 1 / Found by B
  - o Task: 3
  - Problem Description: Hitting the back button doesn't always navigate back to the previous screen
  - Rationale: When we click past eMotions ⇒ Joyful ⇒ Proud ⇒ Stretching ⇒ View Full Movement ⇒ back arrow, we arrive at the past movement screen. This is unintuitive for the user, as the navigation pattern is different than what they used to get to the screen
  - Fix: Have the back arrow track the previous state rather than solely having one "past movements" screen
- H2: Match between System and Real World / Severity: 1 / Found by B
  - o Task: 3
  - Problem Description: Notes written during a movement are not intuitively accessible in the past movements tab
  - Rationale: Intuition suggests that notes written during any movement will be saved, and the most logical place to save these notes would be in the past movements tab. However, as of now, there is no way to access the notes in that tab, only to add additional notes (which also feels unintuitive); notes are rather located in the past eMotions tab, which was not intuitive to me
  - Fix: Add a way to read previous notes so users can access them; otherwise notes seem largely irrelevant to the app
- H2: Match between System and World / Severity: 2 / Found by A
  - Task 3
  - Description: When viewing past motions, there are only two extra categories called "legs" and "arms" to describe motions.
  - Rationale: The user probably will do exercises that use the whole body, the back, the calves, etc so I wonder if these broad categories are not enough to fully encompass human exercise.
  - Fix: Find more detailed categories or take out categories (let the user describe them themselves)
- H2: Match between System and World / Severity: 1 / Found by A
  - Task 3
  - Description: When viewing the past history of an motion, the eMotions start with the first time you did the motion, though rationally it would make more sense to start with when you most recently did it
  - Rationale: People would have to scroll through many dates to see their most recent eMotion.
  - Fix: Either use a calendar system (where the eMotions are all laid out) or put the most recent eMotions in the beginning of the history (assuming users want to see their most recent eMotions first)

- H3: User control and freedom / Severity: 3 / Found by A, C
  - o Task 1
  - Description: User cannot go back to the motion they just finished before moving on the next motion.
  - Rationale: The user may have wanted to see something on the previous screen but is forced to continue with the dialogue into the next motion.
  - Fix: Add a back button in between screens OR have a cumulative page of movements so the user can go back and edit / change anytime
- H3: User Control and Freedom / Severity: 1 / Found by B
  - o Task: 2
  - Problem Description: After selecting an unguided workout, after completing a motion, it automatically goes back to a guided exercise
  - Rationale: Routine users may not want to use recommendations if they have their own routines; requiring frequent users to constantly navigate to the unguided tab could be annoying to the user
  - o Fix: Keep track of which tab which last selected
- H3: User Control and Freedom / Severity: 3 / Found by A, B, C, D
  - Task: 1 and 2
  - Problem Description: After clicking on Brielle's back day, there is no way to navigate away from the tab, only to proceed
  - Rationale: On the first screen after clicking on Brielle's back day, the back button and the bottom navigation bar both do not work, so the user has no choice to proceed with the workout, which limits their options
  - Fix: Add consistent methods of navigating away from the tab OR add a back button
- H3: User Control and Freedom / Severity: 1 / Found by A, B
  - o Task: 3
  - Problem Description: Clicking on a specific motion in a past movement does not allow you to navigate back to the overview for that specific movement, but forces you to go back to the screen with all the movements
  - Rationale: In this specific context, the back button does not navigate back one screen, but two screens, which is inconsistent with the functionality of all other screens
  - o Fix: Ensure that the back arrow only navigates back one screen for all uses
- H3: User Control and Freedom / Severity: 1 / Found by B
  - o Task: 3
  - Problem Description: Past eMotions tab has limited information with bubbles being the same size
  - Rationale: In the past eMotions tab, all the bubbles are the same size, and it is unclear to me whether that is a result of the user having even eMotions of all five types or if it only shows the top five eMotions with no indication of hierarchy. The lack of distinction reduces the user's ability to use this information provided
  - Fix: Change the formatting to a list, or provide a visual indicator of which eMotions are most prominent

- H3: User Control and Freedom / Severity: 1 / Found by B
  - o Task: 3
  - Problem Description: Editing a previous movement introduces a screen that is impossible to navigate away from
  - Rationale: The above problem forces the user to complete a task, giving them less freedom in what to do (absence of cancel button as well)
  - Fix: Keep a consistent back button for screens
- H3 User Control & Freedom / Severity: 2 / Found by C
  - Task: All
  - Description: I didn't notice the settings button until I'd gone through all three tasks. I think this could be confusing for users who wish to access the settings.
  - o Rationale: The settings button is in its own corner and is quite unnoticeable.
  - Fix: Put the settings button in the menu or in an otherwise more intuitive location, or make it more obvious.

- H4: Consistency and Standards / Severity: 2 / Found by A, B
  - Task: All Tasks (Menu)
  - o Problem Description: Icons at the bottom don't match in aesthetic
  - Rationale: The leftmost and rightmost icons at the navigation menu at the bottom have different boldness of lines. Also, only the center icon has color but no lines, which is inconsistent with the design of the rest of the app
  - Fix: Replace the center eMotion icon with a icon of sorts, then standardize the style to match one another by stroke width and size
- H4: Consistency and standards / Severity: 2 / Found by A
  - o Task 1
  - Description: Feelings and sub-feelings have different background colors.
  - Rationale: The extra use of color should express more detailed information or there should be a recognizable key to what the new colors correspond to.
  - Fix: Make them all the same color, or have some kind of recognizable key for what exactly the sub-colors represent to the user. Let the user choose their own color scheme? Llke light dark mode
- H4: Consistency and standards / Severity: 1 / Found by A
  - Task ′
  - o Description: When adding a note, the text is not aligned with the line.
  - Rationale: Usually typed input is consistently aligned with some amount of space between the text and line.
  - Fix: Have a consistent amount of space between the text and line, or remove lines altogether
- H4: Consistency and standards / Severity: 2 / Found by A
  - o Task 2
  - o Description: User cannot change the current motion on every main motion page
  - Rationale: This feature was only available on one of the motion screens, though for consistency sake this feature should be available on all screens.
  - o Fix: Add this feature to all motion screens.

- H4: Consistency and Standards / Severity: 1 / Found by B
  - o Task: 2
  - Problem Description: When adding a note, the top left back button's function is unclear (does it also cancel the note or navigate away from the entire tab?)
  - Rationale: The back arrow has indicated navigating backwards consistently across the app; however, it is unclear if adding the note is a popup or a separate tab, so as a result hitting the back button doesn't have a clearly defined purpose
  - Fix: Clearly indicate between popup screens and new frames
- H4: Consistency and Standards / Severity: 3 / Found by B
  - o Task: 1
  - Problem Description: When entering in eMotion entries, the first two screens have "next motion" as the large button, but the third screen has "add note" as the large button
  - Rationale: Keeping the button size but switching what each button does is likely to cause lots of confusion among users, and will also interrupt the consistency of certain actions, causing users to slow down and forcing them to read each button. In general, my recommendation is to have add note be the large button to encourage more engagement, next motion on the left, and end movement on the right, since ending the movement feels more "final" than next motion
  - Fix: Make the button locations and sizes consistent
- H4: Consistency and Standards / Severity: 2 / Found by B
  - o Task: 1
  - Problem Description: Before and after entering the eMotions of any particular motion, the layout of the screen is the same; the only difference is the faint colors of the emotion circle, which makes it hard for users to distinguish
  - Rationale: Many times when navigating the medium-fi prototype, I was confused whether I had already entered my eMotions for a certain exercise or not, since the screen before and after data entries is essentially the same. It would make more sense to me if notes could only be added after data was entered, and splitting those screens into separate UI to reduce confusion
  - Fix: Make two different UIs for before and after eMotion data entry to differentiate the before and after screen after logging emotions
- H4: Consistency and Standards / Severity: 0 / Found by B
  - o Task: 2
  - Problem Description: On the "reflect" tab (leftmost button on the bottom navigation bar), the rightmost button on the navigation bar does not go to "Discover Movements"
  - Rationale: Intuitively, the navigation bar would allow you to exit any given screen to view another; seems like this is probably just a Figma bug, so I labeled the error as severity 0, but worth taking a look at
  - o Fix: Add missing transition
- H4: Consistency and Standards / Severity: 0 / Found by B
  - Turns out to be an accessibility issue
  - o Task: 2

- Problem Description: After selecting eMotions of Brielle's Back Workout, on the "care to elaborate?" screen, some colors bleed out of the circle while other selected ones are only bolded
- Rationale: It's unclear if there is a reason why these specific colors stand out; I
  like the aesthetic, but it seems like something that should be consistent across all
  selections
- Fix: Either make all the colors bleed out of the circle faintly (as in excited and eager), or only bold (peaceful, etc.)
- H4: Consistency and Standards / Severity: 1 / Found by B, C
  - o Task: 3
  - Problem Description: When editing a past movement, adding an exercise is labeled as "add an eMotion"
  - Rationale: My understanding is that the action itself is a motion, and eMotions are the graphs that depict the feelings a user has for a certain motion. Intuitively to me, then, it should be labeled as "add a motion", since the descriptor includes the exercise
  - Fix: Rename the tab and clarify definitions
- H4: Consistency and Standards / Severity: 0 / Found by B
  - o Task: 3
  - Problem Description: On the past motions screen, between the legs and arms tab, the purple eMotion transitions upwards between the screens
  - Rationale: Relatively certain that this is a bug in the Figma transitions, but the contradictory movement makes me feel that there is some existing relation between the emotions of those two movements, which I am certain is not the case
  - Fix: Consistent transitions for all eMotions
- H4 Consistency & Standards / Severity: 3 / Found by C
  - Task: Look at notes and feelings from past Movements
  - Description: The sudden introduction of the body diagram is a bit confusing and out of sync with the other visualizations in the app.
  - Rationale: Users might not know what to indicate on that diagram, or how to use
    it.
  - Fix: Provide an explanation or a different visualization that fits more with the other visualizations used throughout the app

- H5: Error prevention / Severity: 2 / Found by A, C
  - Task 1
  - Description: There is no confirming of when the user wants to end the movement so the user may accidentally end up ending the movement early.
  - Rationale: The user is not given a confirmation screen of whether or not they really wanted to end the movement. There is a back arrow, but it feels like willy-washy since the user shouldn't be able to just go back to the workout ANYTIME, but only if they really haven't finished their workout and it was a mistake which sould be fixed by the confirmation.

- Fix: Add a confirmation screen
- H5 Error prevention / Severity: 2 / Found by A, C
  - o Task 2
  - Description: There is no confirming of when the user starts another person's workout
  - Rationale: The user is able to undo, but a better solution would have been to confirm with the user if they really wanted to start this discovered new movement.
  - Fix: Add a confirmation screen like when the user starts their new own movement.

- H6: Recognition rather than recall / Severity: 1 / Found by B
  - o Task: 1
  - Problem Description: Having the user first complete their current eMotion before entering the app feels redundant (if completing current emotion is a repetitive task and not initial onboarding)
  - Rationale: Since users need to log their eMotions when they start their workout anyways, it seems redundant to have them log that information when they enter the app as well
  - Fix: Have the starting screen be a new movement screen (with more UI decorative elements) OR home screen
- H6: Recognition rather than recall / Severity: 1 / Found by A, B, D
  - Task: All Tasks
  - Problem Description: Buttons are same color as background and have no distinguishing style
  - Rationale: The buttons, given their identically layouts, require a user to read them to know what they do; having a visual indication (for example, faint red background for cancel buttons) will make navigation simpler
  - Fix: Change coloring for buttons to make them more visually intuitive, add background color / bold text?
- H6: Recognition not Recall / Severity: 1 / Found by A
  - o Task 3
  - Description: When adding a new emotion to one's movement, there is no indicator of what movement we are adding to.
  - Rationale: We should minimize the user's memory load, so recent instructions should either be accessible on the same page or repeated on another.
  - Fix: Add copy "Add an eMotion to movement #1" or other helpful text
- H6: Recognition not Recall / Severity: 1 / Found by A
  - o Task 3
  - Description: When clicking the "the motion you were doing when you felt this eMotion", the eMotion the user chose is not specified.
  - Rationale: We should minimize the user's memory load, so recent instructions should either be accessible on the same page or repeated on another.
  - Fix: Add copy "Click the motion you were doing when you felt "happy" depending on what the user gave

- H6: Recognition rather than recall / Severity: 1 / Found by B
  - o Task: 3
  - Problem Description: No indication of the time or date of the past movements, eMotions
  - Rationale: Intuitively, I view the past movements as movements I have completed in the past; there is a lack of visibility in when these exercises were completed, which could be important to certain sporadic users
  - Fix: Add a simple date or time indicator
- H6: Recognition rather than recall / Severity: 2 / Found by B
  - o Task: 2
  - Problem Description: After completing someone else's workout (Brielle's Back Day), naming the workout makes me feel that I am renaming someone else's experience
  - Rationale: At first, my reaction was that I was renaming someone else's workout.
     After thinking longer, since there is the opportunity to change certain exercises, it could be customized to be my own. In this case, there should be some indication that I am imitating someone else's workout, but still completing my own
  - Fix: Don't allow renaming, or indicate to the user a sense of ownership even when following someone else's workout -> make more clear that we are saving the workout to our own library as compared to completely renaming their workout
- H6: Recognition rather than recall / Severity: 3 / Found by B
  - o Task: 3
  - Problem Description: Clicking on the small circles between movements when editing a movement is unintuitive
  - Rationale: While there are small gray circles between movements to select where you want to add an additional movement, it is difficult to recognize what these buttons do (without a help tab). I also have concerns about the circles at the ends of the screen on the left and right, as they may be harder to see / press for users
  - o Fix: Add more indicators on what these buttons do / change the layout
- H6 Recognition not Recall / Severity: 4 / Found by C
  - Task: Look at notes and feelings from past Movements, but also applicable to other two
  - Description: Provide some sort of message at the top of various screens to explain what screen the user is on and help them situate themselves within a flow of screens.
  - Rationale: Users can get lost amid the different flow of screens, especially since some are quite similar. For example, the aforementioned screens that come before the final screen of "You've felt XXX during the following motions" may be easy to get lost in.
  - Fix: Add signposting or guidance (perhaps at the top of the screen) that indicates where the user is — for example, dots that are empty or full depending on what screen the user is on.

• H7: Flexibility and efficiency of use / Severity: 2 / Found by A

- o Task 1
- Description: The user is given end movement, next motion, and add note as their three calls to action after completing reflection for a motion.
- Rationale: The priority of the buttons is unclear. If users should be writing notes
  every time, should we make that a forced action? If we don't want users to do
  that at all, should we make it a smaller portion of the screen?
- Fix: Prioritize what we want the user to do, and design one primary call to action and two secondary actions based on our reasoning
- H7: Flexibility and efficiency of use / Severity: 1 / Found by A
  - o Task 1
  - Description: The question asked by the "Energy Level" scale and corresponding text may not be completely clear.
  - Rationale: Though it is fairly consistent with real word terminology that the lefthand side of the scale corresponds with lower energy and the righthand side corresponds to high energy, users may be unsure what "Energy Level" refers to.
  - Fix: Ask where the user's energy level is in the form of a question in the same way every other question in onboarding is asked.
- H7: Flexibility and Efficient of Use / Severity: 0 / Found by B
  - o Task: 1
  - Problem Description: Currently, there is no way to accelerate the eMotion process for power users
  - Rationale: In general, it seems from your user interviews that the main setback is that users have to interrupt their workout schedule to input all this data, which can distract them from the workout itself. Having a way for people to preset certain exercises or eMotion configurations could help alleviate this problem and give people alternatives to better suit their needs
  - Fix: Allow for users to have a "fast-input" form to minimize time spent away from their motions
- H7: Flexibility and Efficient of Use / Severity: 3 / Found by B
  - o Task: 3
  - Problem Description: Unclear of purpose of distinction between past motions and past movements
  - Rationale: For past movements, motions, and eMotions, it seems unclear whether this is a historical record or a "playlist" of sorts. Either way, it seems redundant to have past motions if all the past motions are recorded in the past movements tab. Past motions are also found in the past eMotions tab
  - o Fix: Condense tabs into one intuitive screen
- H7 Flexibility & Efficiency of Use / Severity: 2 / Found by C
  - Task: Look at notes and feelings from past Movements
  - Description: It takes quite a few screens to reach the final screen of "You've felt XXX during the following motions."
  - Rationale: That number of screens can confuse users, especially when it's also a bit unclear what final screen they will lead to.

- Fix: Reduce the number of screens it takes to get to that final screen and make it clear what they're going to lead to (could also fall under H10 Help & Documentation). For example, use the same circle with categories => circle with more categories visualization to lead users to the final screen.
- H7 Flexibility and efficiency of use / Severity: 2 / Found by C
  - Task: Complete a "Freestyle Movement"
  - Description: The screen at the end of a movement seems to only allow the user to name the movement, which they might not want to do.
  - Rationale: There's only one button ("name movement").
  - Fix: Redesign the UI element to signal that the user doesn't have to name the movement, or makes them feel like they have other options for what to do.

- H8: Aesthetic and Minimalist Design / Severity: 3 / Found by B
  - Task: All Tasks
  - Problem Description: Color scheme of the app design is relatively dull, even if the product itself is very colorful
  - Rationale: With such a strong emphasis on color and visual appeal in the visual representation of emotions, having a stronger or more vibrant color scheme in the app would be useful; currently, the white is largely dominant across the entire UI, giving little contrast and blending everything together
  - o Fix: Solidify a more diverse color scheme apart from the core feature
- H8: Aesthetic and Minimalist Design / Severity: 1 / Found by B
  - Task: All tasks
  - o Problem Description: Transitions between screens always move right
  - Rationale: General feedback, but for example, when navigating between the three different tabs (previous movements, new eMotion, or social tab), the transition always slides to the right, but intuitively previous movement tab should be sliding from the left
  - Fix: Add transitions intuitive to the location of specific tabs on the bottom bar
- H8: Aesthetic and Minimalist Design / Severity: 1 / Found by B
  - o Task: 1
  - Problem Description: Adding a note causes the entire workout to shift with the slide up transition
  - Rationale: Likely a figma error, but in general I feel that the note should be isolated from the rest of the background of the screen; some other apps dull the background when notes pop up
    - Fix: Minor fixes to transitions
- H8: Aesthetic and minimalist design / Severity: 2 / Found by A
  - Task 2
  - Description: When viewing someone else's workout, there are only 3 eMotions for the 5 movements.
  - Rationale: There should be 5 eMotions (I'm assuming), one for each movement.
     The visuals seem off because of this.

- Fix: Add 5 eMotion circles total (perhaps implement scrolling to have them all fit on the same screen?) or match up upper spectrum row, motion number and emotion circles + what do they even mean?
- H8: Aesthetic and Minimalist Design / Severity: 1 / Found by B
  - o Task: 3
  - Problem Description: When changing screens, the top left arrow also moves with the rest of the screen
  - Rationale: In general, the expectation is that UI components like the back button will not need to move with the swiping screen; having the extra redundant components animate inward creates visual distractions that are otherwise unnecessary
  - Fix: Remove animations on navigation arrows
- H8: Aesthetic and Minimalist Design / Severity: 1 / Found by B
  - o Task: 3
  - Problem Description: On the past motions screen, when changing between components (all, legs, and arms), the frames do not move
  - Rationale: Lack of movement of the frames makes me think that there is a relationship between the eMotion content of the different categories, but it seems that the only similarity is the same UI layout
  - Fix: Add transitions to the frames to match the existing transitions
- H8: Aesthetic and Minimalist Design / Severity: 1 / Found by B
  - o Task: 3
  - Problem Description: When editing a past movement and adding an eMotion, it is unclear why clicking on the existing squats motion takes us back to the movement screen, if the top row of eMotions is clickable, make that clear
  - Rationale: Lack of a reason to navigate away with that button; the back arrow already accomplishes this task, but it is unclear what the intuitive purpose of this additional button is
  - Fix: Remove this transition from the page
- H8: Aesthetic & Minimalist Design / Severity: 1 / Found by C
  - Task: Look at notes and feelings from past Movements
  - Description: I think the design of the reflection page feels "rigid" compared to the rest of the app and compared to the app's goal.
  - Rationale: The rectangular visualizations feel strangely constrained, or give off somewhat a corporate dashboard feeling, compared to the fluid feeling of the rest of the app.
  - Fix: Incorporate a more playful or fun design for that page, or come up with a fun new overview visualization of past movements.

## Н9

- H9: Help users recover from errors / Severity: 2 / Found by B
  - Task: 1
  - Problem Description: On the "How do you feel?" screen when adding an eMotion to a current motion, there is no indication that tapping the wheel will select

- entries, and users are given no help or indications to progress from that screen otherwise
- Rationale: Users can easily get stuck on this screen if they don't intuitively click on the wheel to select entries, which is very possible especially among older populations who are not as familiar with technology. Users should be given a dialogue after a set time / a help button to help people navigate the screen.
- Fix: Add an indicator educating users how to select a feeling

- H10: Help and Documentation / Severity: 2 / Found by A
  - All tasks
  - Description: Unsure if all users know what all of the exercises listed in the app look like
  - Rationale: If a user doesn't know how to do a specific movement, they should be quided to a resource
  - Fix: Have videos, pictures, or some kind of visual learning process for beginners.
     Help icons that explain functionality documentation might be used here
- H10: Help and documentation / Severity: 3 / Found by B, C
  - Task: All tasks
  - Problem Description: Missing an overarching help tab to teach people how to use the app
  - Rationale: I think in the current design there are still a few ambiguities on how to navigate the app and the descriptors of certain tabs (for example, the rightmost tab feels like I am following someone else's movement, but I can also edit and rename it). Having an overarching help tab could help clarify the purposes of these tabs and help users navigate
  - Fix: Add a very simple help tab (through a help icon)
- H10: Help and Documentation / Severity: 1 / Found by A
  - o Task 1
  - Description: Unsure how the system comes to the recommendation of other motions based on the user's past feelings
  - Rationale: More clarity could be good here specifically to explain what exactly
    this is supposed to achieve for the users. Intuitively, it is not clear. Some text
    could be helpful in explaining how the system came to the conclusions it did
  - Fix: Add help icons that explain system recommendation system rationale.
- H10: Help and Documentation / Severity: 1 / Found by A
  - o Task 3
  - Description: Unsure why users do the embodiment while reflecting on past motions
  - Rationale: More clarity could be good here specifically to explain what exactly
    this is supposed to achieve for the users. Intuitively, it it not clear what this adds
    compared to the other actions.
  - Fix: Add help icons that explain functionality documentation

### H11

H11: Accessible Design / Severity: 3 / Found by B, C

- Task: All tasks
- Problem Description: The example colors used in the eMotions may be hard to tell apart for someone with a yellow/pink color deficiency
- Rationale: I think it is wonderful that the team is planning on allowing people to use their own colors, but for the examples (unsure if there is going to be an example for showing people how to log eMotions), I would recommend using a different color set that is easier to distinguish
- Fix: Minor changes to color for inclusivity
- H11: Accessible Design / Severity: 3 / Found by A, B, D
  - Task: All tasks
  - Problem Description: With this current iteration of the project, the eMotion diagrams are purely visually based, leading to accessibility concerns with the visually impaired / color-deficient users. Feelings and sub-feelings being different colors (that seem somewhat arbitrarily picked) can cause people with visual impairments to be confused.
  - Rationale: I think this app has a really unique opportunity of being able to incorporate alternative modes of input, such as haptic (touch) or auditory entries; I understand that the med-fi prototype wouldn't include such complications, but in the future, accessibility could be incorporated in different forms to build a more inclusive app. Though there is a text to show what the color is supposed to mean, the picking of the color itself may be confusing when people with different color attachments view them.
  - Fix: Add other methods of eMotion logging (i.e. haptic, auditory, etc.) + add overarching emotion into the color circle and color spectrum row. Better color coding system OR take away colors altogether.

- H12: Value alignment and inclusion / Severity: 2 / Found by A
  - All tasks
  - Description: Understanding is one of the most important values to this team (from slides). There is a lack of extra detail when it comes to understanding terminology + the "why" behind many of the actions the user has to take in the app.
  - Rationale: Designs should have values encoded that the user can related to and understand very quickly.
  - Fix: Have a longer onboarding process + add extra catchphrases and slogans to make the user feel like the system is understanding them (more personalized) when giving suggestions and therefore they might stay longer on the app
- H12: Value Alignment & Inclusion / Severity: 2 / Found by C
  - All tasks
  - Description: I love the overall values and meanings encoded in this app, but I think it could skew towards movements that emphasize able-bodied-ness.
  - Rationale: There's a lot of focus on the body and movement and I like the idea of being in tune with the body, but I wonder if it would create the aforementioned

- skew (but I'm still thinking through this, so this is more of a thought than a suggestion)
- o Fix: Unsure, still thinking through this

# **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	0	4	0	1	0	5
H2: Match Sys & World	0	4	4	0	0	8
H3: User Control	0	4	1	2	0	7
H4: Consistency & Standards	3	3	4	2	0	12
H5: Error Prevention	0	0	2	0	0	2
H6: Recognition not Recall	0	5	1	1	1	8
H7: Efficiency of Use	1	1	3	1	0	6
H8: Minimalist Design	0	6	1	1	0	8
H9: Help Users with Errors	0	0	1	0	0	1
H10: Help & Documentation	0	2	1	1	0	4
H11: Accessible	0	0	0	2	0	2
H12: Value Alignment & Inclusion	0	0	2	0	0	2
Total Violations by Severity	4	29	20	11	1	65

*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 A	Evaluator B	Evaluator C	Evaluator D	Evaluator E
Sev. 0 Ex: Eval A count / total sevs 0 in table #3	0%	100%	0%	0%	
Sev. 1 Ex: Eval A count / total sevs 1 in table #3	44.8%	62%	10.3%	6.9%	
Sev. 2 Ex: Eval A count / total sevs 2 in table #3	65%	20%	30%	0%	
Sev. 3	27%	81%	55%	9%	

Ex: Eval A count / total sevs 3 in table #3 Sev. 4	0%	0%	100%	0%	
Ex: Eval A count / total sevs 4 in table #3	070	070	10070	070	
Total (sevs. 3 & 4) Ex: Eval A = sum(sev 3: sev 4 counts) / sum(sev 3: sev 4 in table #3)	25%	75%	58%	8.3%	
Total (all severity levels) Ex: Eval A total sev count / total sevs (green cell) in table #3	44.6%	54%	25%	6%	

<sup>\*</sup>Note that the bottom rows are not calculated by adding the numbers above it.

## 5. Summary Recommendations

[merge the general recommendations you made here]

Fantastic work on the medium fidelity prototype! The app does a fantastic job of turning conventional ideas of "workouts" on their head and emphasizing the emotional element of fitness. The simplicity of the app also allowed for intuitive navigation; screens didn't feel crowded. Finally, the presentation of the colors was really unique and emphasized the emotional differences between exercises.

While the app functions for its intended purpose, there are a few concerning aspects for the visual design. The medium-fi prototype felt slightly more like a skeletal frame; the buttons and screens all had white background, which made it harder to distinguish between components. The empty white space also indicated that there is a better way to manage the data; having a color coded UI would lead to more intuitive navigation and more clearly defined hierarchy.

We also had a major accessibility issue in the color scheme of the existing movements; the red-green-yellow color scheme in particular was confusing for our group, especially our one member with a red-green color deficiency. We recommend using a stronger and more diverse color scheme in these visualizations to boost inclusivity, or to introduce alternative modes of expressing eMotions.

Repetition was also a slight issue – as we touched upon earlier, the tabs had a relatively similar aesthetic and button placement, so different functionalities were placed in

the same place, making it harder for people to navigate. For example, the add note button would sometimes switch with the next movement button placement, which was confusing. The names of the different components (movement, motion, and eMotion) was also confusing for us, especially prior to reading the README, so we would recommend condensing that information into a smaller list of terms, or clarifying in a help tab of some sort in the app.

Overall, the idea is really solid and the prototype had all the right functionality! With a more clear design and distinctive UI elements, the app will really shine in helping people align their emotions with their exercise.

## **Severity Ratings**

- 0 not 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**

- Words, actions, and UI elements should be consistent across the entire platform
- Follow platform and industry conventions

### **H5: Error Prevention**

- Minimize error-prone conditions
- Remove memory burdens, support undoing, and warn your users when necessary

## **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, keyboard shortcuts)
- Allow users to tailor frequent actions (e.g., macros)

### **H8: Aesthetic & Minimalist Design**

• No irrelevant information. Focus on the essentials.

## 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

### H11: Accessible

- Users can interact with the system using alternative input methods.
- Content is legible with distinguishable contrast and text size.
- Key information is upfront and not nested for screen readers.

• Purely visual or auditory content has text-based alternatives for users with low vision and low hearing.

## **H12: Fairness and Inclusion**

- Users shouldn't feel that the design is not made for them.
- The design should meet all users' needs equally and prevent the reproduction of pre-existing inequities.
- It should not create additional burdens for members of disadvantaged populations.

## H13: Value Alignment

- The design should encode values that users can understand and relate to.
- Conflicting collateral values should not emerge when the user interacts with the product.
- Encoded values should match users' values in a broad set of use-contexts.