

Heuristic Evaluation of BuddyBuilder

1. Problem

BuddyBuilder uses generative AI, a foundation model, and personalized onboarding to help athletes in underserved sports perform to the best of their abilities.

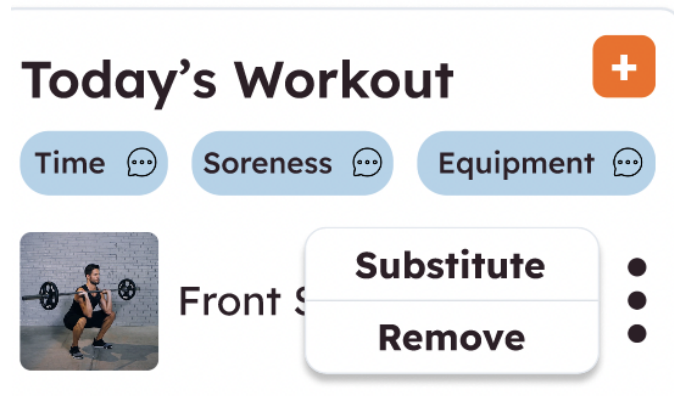
2. Violations Found

[H1: Visibility of Status]

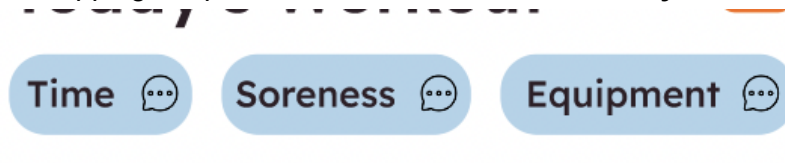
1. Once on the workout screen, it's unclear you've actually started the workout. It could be misconstrued for learning more about the exercise details. **Severity 3 / Found by A, B**
 - a. Fix: Add header signifying that workout is in progress. Or, perhaps a pause/play button to make it clear that you are in the "workout status."
2. After clicking generate on workout plan, it takes you back to the home page – it's unclear whether the plan has been generated and updated or if it's the old plan. **Severity 2 / Found by A, B**
 - a. Fix: Show visualization of refreshing or communicate exercises have changed via banner
3. It is unclear when starting a workout whether the workout plan is based on all movements or just one. **Severity 2 / Found by A**
 - a. Fix: Before pressing start workout, highlight the movements which are being focused on.
4. The opening interface is confusing, particularly "Movement Goals" This violates the heuristic because the user should always be informed about what is happening. **Severity 3/Found by D**
 - a. Fix: Maybe add in wording like "Your Current Movement Goals." When the user clicks on the "plus," it doesn't clarify what that action means.
5. Once you add a new movement goal, it should give some indication that this is now saved. For example, it could be a pop up that says "new goal saved," or anything to indicate this improvement. **Severity 2 / Found by C**
 - a. Fix: Some sort of overlay or pop up that says "new goal saved"
6. The upload button to the information presented could be clearer. This violates the heuristic because the design should always inform users about what is going on through appropriate feedback. **Severity 2 / Found by D**
 - a. Fix: Add a different button that says "information" or something similar, and add a title on the top of the screen that tells the users what is going on when they see the interface.

[H2: Match Sys & World]

1. When you click the three dots on a workout like the following picture, it's unclear what clicking substitute will result in. Will the user have to manually enter their own exercise? Substitute seems to imply you are substituting a particular exercise but it doesn't present what you may be substituting. **Severity 1/Found by A**



- Fix: Perhaps use "Replace with ____" instead of substitute
2. The placement of the ovals map on to filtering when thinking about other applications. However, only when you look closer and see the chat icon does the user realize that it is not meant for filtering. Seeing these chat icons along with the placement could make the user confused on what exactly the buttons are meant to be doing, given that they might be mapping templates from other websites. **Severity 3/Found by A**



- Fix: Maybe move bubbles to bottom of screen or make the text bigger
3. When looking at the workout, there are options above about soreness, equipment and time. When you click these, they all take you to the same chat bot. It would make sense to have separate buttons if they took you to different areas, but this can be confusing if I click on soreness and am just met with a chatbot that asks if I want to talk about anything. Maybe turn these into one chat button? On top of this, there is already the drag up for the chatbot at the bottom of the screen, so on one page there are 4 buttons to get to the same thing. **Severity 3 / Found by B, C**
 - Fix: Combine into one button, if not move them. Or put them as prompts into the chatbot screen similar to how chatGPT offers stuff
 4. On the upload screen, when I click the upload button, I expect to be prompted to upload something or to finalize my upload; this is not what happens. This violates the heuristic because buttons should follow concepts familiar to the user. **Severity 2 / Found by D, B**
 - Fix: Recommend allowing this button to upload without taking the user to a different screen.

[H3: User Control]

1. When you press movement goals and then add, pressing the back button takes you to the home page rather than the movement goals page. **Severity 2 / Found by A, B, D**
 - a. Fix: Connect the back button to the movement's goal page
2. There is no way to remove currently active movement goals or cancel the addition of one once you're in the process. **Severity 2/Found by A, C**
 - a. Fix: Add an "exit" or "cancel" feature.
3. The screen that pops up after clicking the "start workout" button doesn't have a way for users to stop or pause their workout. The only way to get out of this screen is the back button. It feels like users should have a bit more control over their workouts and whether they want to pause or stop it. **Severity 3 / Found by B**
 - a. Fix: I would add both a pause and stop button somewhere on the screen (probably near the bottom).

[H4: Consistency and standards]

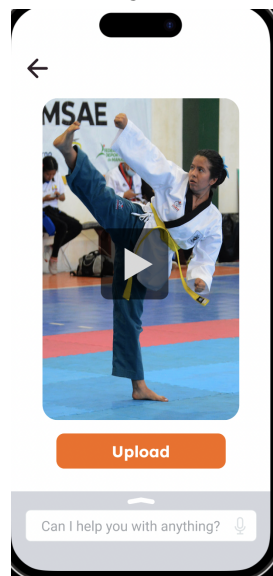
1. Pressing "+" in movement goals and "+" in today's workout leads to the same screen but different buttons imply different screens. **Found by A, B, C / Severity 3**
 - o Fix: Take out one of these buttons or link the "+" from today's workouts to a different screen. It would be more intuitive to have the plus button on today's workout take you to a page about different exercises, instead of in competition movements.
2. The text used for displaying repetitions and sets varies from page to page. In one places, the app says "3x8" and in one place it lists 1, 2 and 3 and details weights. **Found by A/ Severity 2**
 - o Fix: Perhaps, there could be a common shorthand used but in the first screen/home screen, the long notation is used.

[H5: Error Prevention]

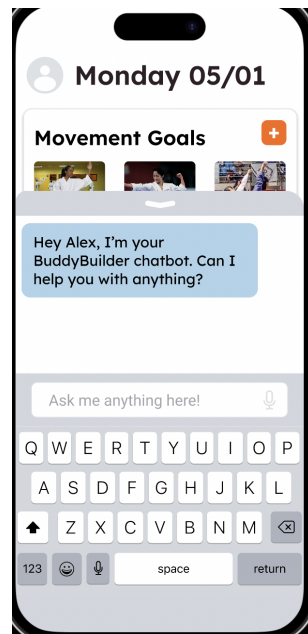
1. On the workout screen and the home screen, the same click interaction does not close the AI assistant when the user clicks to open the AI assistant. This violates the heuristic because it can cause the user frustration by not quickly allowing them to "undo" an action. **Severity 3 / Found by A, B, C and D**
 - a. Fix: Recommend allowing the opening and closing of the AI assistant with the same activity.
2. The "start workout" button is large and just on the homescreen, so it would be easy for users to accidentally click it and start the workout. There is no confirmation before it begins. **Severity 2 / Found by B**
 - a. Fix: Add a confirmation message and button to make users confirm that they do want to start the workout before actually beginning.

[H6: Recognition rather an recall]

1. There are many screens that do not have a header or title thus requiring users to remember exactly where they are in the app instead of tracking it for them via the titles. I think this is somewhat confusing and disorienting. **Severity 3 / Found by B**
 - a. Fix: Screen headers are a good way to help ground users during their time in the app, so I would recommend adding headers to all screens to help users track where they are in the app and what they're doing.
2. When uploading a movement goal, the user has to remember what current movement goals they have. In the following page, when uploading a new movement goal, users are unable to see previous goals they uploaded – is it possible the user could then have overlap? **Severity 2/Found by A**



- a.
 - b. Fix: Perhaps, in the screen above, users are able to see a small menu/symbols depicting current movement goals.
3. If the user wants to use the chat function, they have to cover the screen – meaning they have to remember whatever information they may be referring to. **Severity 3/Found by A, D**



- a.
- b. In the screen above, if the user wanted to ask a question about the exercise, they might bring up the chat function but then forget the particular name of the exercise given that it blocks the information.
 - i. Fix: Perhaps the chatbot could be on a different page, so that users know they will have to remember certain information. Or the chat itself doesn't include the white space and is transparent so users can see the information behind.
4. When the user has completed an exercise in the workout screen, it isn't clear that they have completed a workout and moved on to the next exercise. This violated the heuristic because the users shouldn't have to remember that they have completed an exercise.

Severity 2/ Found by D

- a. Fix: Recommend that the exercise gets "smaller," and there is a checkmark or completed indication for the user.

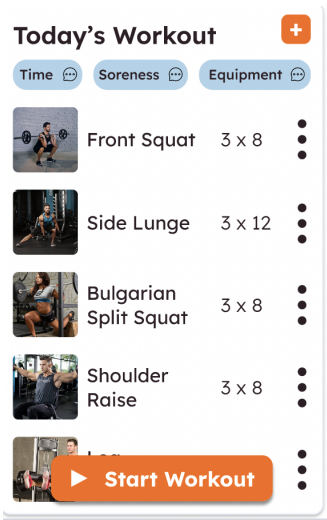
[H7: Flexibility and efficiency of use]

1. When I go to substitute a workout, I am unable to do so. I think this was the goal of the complex task, and it is hard to complete the task when I reach a dead end during it. I could be doing it wrong though! **Severity 3/Found by C, A**
 - a. Fix: Make the substitute button connect to something
2. In the "three dots" edit options for each exercise, the user cannot modify the number of sets and/or reps for each movement. This violates the heuristic because it does not allow users to tailor frequent actions. **Severity 3/Found by D C**
 - a. Fix: Add an edit option so users can change their set and rep range in the opening interface.

3. There is no ability to shift the weight recommendations displayed in kilograms. This violates the heuristic because it doesn't allow users to tailor frequent actions. **Severity 2 / Found by D, A**
 - a. Fix: Recommend allowing the user to change the quantity display to the measurement system they are most familiar with.
4. There is no ability to allow the user to change the weight recommendations to a lower or higher amount. This violates the heuristic because it does not allow users to tailor frequent actions. **Severity 2 / Found by D**
 - a. Fix: Add an edit option so users can adjust their weight based on the amount they want to do/complete.
5. There is no quick way to generate a workout plan from the home screen. If the user wants a new workout plan based on existing movements, they have to follow the flow of updating movements in order to generate workout. There feels like a lack of user autonomy in being able to easily access different functionalities/screens within the app. I wonder what a navigation bar might look like for increasing ease of accessing all features within the app. **Severity 3/ Found by A, B**
 - a. Fix: Similar to an autostart in workouts, there could be an autostart/generate workout on the home page. Additionally, you could think about what tabs you might have on a navigation bar if you were to use one as I think this would increase efficient use and allow for increased user autonomy.
6. The user cannot change the order of the exercises they are prompted to do on the workout screen. This violates the rule because it does not allow for the tailoring of frequent actions. Image the user is in the gym, and the squat rack isn't available. **Severity 1 / Found by D**
 - a. Fix: The user should be able to swap the order of the exercise.

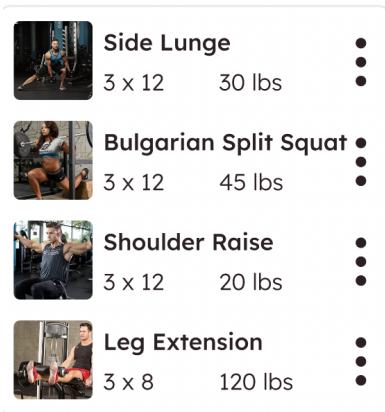
[H8: Aesthetic and minimalist design]

1. It can feel a little overwhelming to have the start workout button and the chat button drag up always hovering. I think just picking one to always show, and sticking to it, would make the page feel less cluttered. One reason I say this is that it currently blocks the bottom workout before you start it, so you can't feel the whole workout. **Severity 2/ Found by A, C, B**
 - a. Fix: condense buttons, or put in non hovering area



b.

2. The “Movement Goals” page feels a bit empty with the excess white space at the bottom. It is good that there isn’t information overload, but the empty space just feels like the screen is incomplete. **Severity 2 / Found by B, C**
 - a. Fix: I would recommend either getting rid of the empty space at the bottom or adding another aspect / section to this screen. You could also add a different
3. The margin/white space between exercise titles and the three dots is not all the same. **Severity 1/Found by A**



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- Fix: Add margin between squat and three dots.

[H9: Help users, recognize, diagnose, and recover from errors]

[H10: Help Document]

1. The process of uploading a movement is a little confusing, and I think could benefit from an addition of documentation. Once the video is uploaded, I am confused as to if the body parts (quads, abs, adductors) are imputed by me when I upload the video, or generated by AI itself? **Severity 4 / Found by A, B, C, D**
 - a. Fix: Clearer labels or documentation on where the body parts come? Add a prompt or quick overview of the goal of the upload interface, maybe at the top call

the screen, something that clarifies what the user is uploading to or why they are uploading.

2. I am very confused by the “Saved” category and the screen that you get taken to once you click on the orange plus button. **Severity 2 / Found by B, D**
 - a. Fix: I recommend adding some additional guiding text to help prompt and guide users.
3. It seems unclear what starting a workout means. Is this just a way to see all my exercises at once and check them off? Or is it intended to be used every time? **Severity 2/Found by A, B**
 - a. Fix: perhaps more documentation about what it means to start a workout
4. I would love to understand more about the layout of the application. For example, the top says Monday 5/01, and I wonder if I can view past days, or see a holistic view of how the workout today related to other days. **Severity 2 / Found by B, C, D**
 - a. Fix: Make the label for the page more clear or add a calendar view.

[H11: Accessible Design]

1. From the pictures of movement goals, it’s unclear what the movement is – especially to novices. In addition, because the pictures are quite small, it might be harder to discern differences between similar movements. **Severity 2/Found by A**
 - o Fix: Perhaps an information button could be added to learn more about the movements or a small notation of what the movement is
2. I overall really like the page that comes up once you click start workout, but think it could benefit from an accessible sound button. For example, if someone would want to listen to their workout as they did it, it would be nice to have an option for that! **Severity 2: Found by C**
 - o Fix: Add a sound button :)

[H12: Value alignment and Inclusion]

1. The indication of sets and reps assumes that the user already understands that style of quantitating exercise movements. This violates the heuristic because it creates an additional burden on those who are not familiar with the exercise “math” used to break up movements. If someone is a novice to certain gym activities, words like reps may not be familiar. **Severity 2/ Found by A, D, B**
 - a. Fix: Use repetitions (and avoid jargon)
 - b. Fix: The recommendation would be to have some sort of onboarding that explains sets and reps to new users.

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	0	4	2	0	6
H2: Match Sys & World	0	0	1	2	0	5
H3: User Control	0	0	2	1	0	3
H4: Consistency	0	0	1	1	0	2
H5: Error Prevention	0	0	1	1	0	2
H6: Recognition not Recall	0	0	2	2	0	4
H7: Efficiency of Use	0	1	2	3	0	6
H8: Minimalist Design	0	1	2	0	0	3
H9: Help Users with Errors	0	0	0	0	0	0
H10: Documentation	0	0	3	0	1	4
H11: Accessible Design	0	0	1	0	0	1
H12: Value Alignment & Inclusion	0	0	1	0	0	1
Total Violations by Severity	0	2	21	12	1	37

4. Evaluation Statistics

Severity/Evaluator	evaluator A	evaluator B	evaluator C	evaluator D
level 0	0%	0%	0%	0%
level 1	66%	0%	0%	33%
level 2	52%	43%	28%	43%
level 3	58.3%	58%	41%	66%
level 4	100%	100%	100%	100%
total (levels 3 & 4)	54%	48%	50%	54%
total (all levels)	56%	48%	32%	55%

5. Summary Recommendations

We really enjoyed using and learning about this application! In particular, this app really solves a key need and uses foundation models in an innovative way.

One recommendation is to introduce some kind of onboarding or tutorial process. Our only severity 4 was related to helping users understand the “uploading”, but to expand on this

idea we wanted to provide our most important recommendation is to provide more clarity for your users. We found ourselves a little confused about the layout of the app and what each button meant – when we were creating a workout we were unsure where we could reference that information and how to cancel a workout based on a movement. We think some type of short introduction would help users get acquainted and really understand what they can get out of this tool. This tutorial could solve some of the usability issues related to confusion around what certain buttons do.

Another recommendation revolves around **in-app navigation**. We think that it is important to standardize the back buttons that allow users to return to previous screens and potentially explore the use of a navigation bar that gives users greater autonomy and ability to access different functionalities from the homepage. **Clear headers and labels** for each screen would also provide a lot more clarity for users as they use the application.

We also felt a want for some aesthetic improvements: we would love to see some more white space, along with clearer labels. You have a lot of opportunity to combine information into one line, or condense buttons into one button, etc.

Overall great job team!!!