

Heuristic Evaluation of Turno

1. Problem/Prototype Description

Turno helps busy individuals gamify their chores and overcome decision paralysis by setting short-term activity goals, assigning tasks to accomplish, and building long-term habits.

2. Violations Found

Task One: Complete and share an activity

1. H8: Aesthetic & Minimalist Design / Severity: 1 / Found by A
 - a. Description: the text on the dice roll screen is a bit verbose.
 - b. Rationale: this is a screen that can be rather simple so using extra text diminishes the aesthetic.
 - c. Fix: change text to something like "Roll the dice for a task!"
2. H10: Help & Documentation / Severity: 3 / Found by A
 - a. Description: not clear to me on the task page that I need to swipe to complete the task.
 - b. Rationale: the "Complete" button just looks like a button right now, so my instinct was to press the arrow.
 - c. Fix: animation that shows the arrow bouncing to indicate that swiping is required would be useful!
3. H3: User Control & Freedom / Severity: 1 / Found by A
 - a. Description: no way to exit "Congrats!" modal without switching tabs.
 - b. Rationale: may make users frustrated if they feel like they can't see the task completion screen again.
 - c. Fix: add an "X" to go back to the task completion slider screen.
4. H5: Error Prevention / Severity: 3 / Found by A
 - a. Description: often unclear when you're not at the top of the page when scrolling through the feed.
 - b. Rationale: particularly on the feed tab, if you scroll down a bit, it's hard to tell if you're at the top of the feed or not. Makes it confusing and may make people think they've seen the latest information when they really haven't.
 - c. Fix: add a border to your header or make the header a slightly different color -- or make a "scroll to top" icon pop up once you've started scrolling.
5. H8: Aesthetic & Minimalist Design / Severity: 1 / Found by A
 - a. Description: bolding the entire activity name on the feed seems excessive.
 - b. Rationale: eye strain from reading so much bold on the feed and the name may be the most important part / only part that needs bolding.
 - c. Fix: choose an important part to bold and de-bold the rest!
6. H11: Accessible Design / Severity: 3 / Found by C
 - a. Description: the interface uses an animation to update users that the activity is being chosen.
 - b. Rationale: this would not be accessible to those who cannot see the dice, such as those using screen readers.

- c. Fix: add text on the screen that says “rolling” while the dice is rolling.
- 7. H6: Recognition Rather than Recall / Severity: 2 / Found by C
 - a. Description: the rolled dice goes away after the activity has been chosen. Instead, the text of the task is displayed. The number you rolled is no longer present after you have rolled it. The logo on this page also happens to be a dice rolled to three, but I am unclear if that is intentional as that is there from the start.
 - b. Rationale: users may want to easily know which activity from their list they are currently working on without having to navigate back to their activities page.
 - c. Fix: remove the dice logo from the beginning. Use it only to display the number that you roll, along with text stating “Task #3 is”.
- 8. H3: User control and freedom: Severity: 2 / Found by C
 - a. Description: the dice roll cannot be terminated after it has started.
 - b. Rationale: users, especially first time users, may roll the dice unintentionally or before they have finished setting up their activities.
 - c. Fix: rely more on user integrity and just let them roll multiple times, or add a confirmation page before the roll begins after hitting the role button.
- 9. H4: Consistency & Standards / Severity: 3 / Found by C
 - a. Description: the interface used the word “task” on the page prompting users to roll the dice but the word “activity” (or “activities”) on all other pages.
 - b. Rationale: users may be confused by this inconsistent terminology for the same function.
 - c. Fix: use “Activity” on all screens.
- 10. H12: Value Alignment and Inclusion / Severity: 3 / Found by C
 - a. Description: after completing an activity, the interface shows you how many days in a row you have completed that activity and how many days in a row you have completed an activity in general. This can be shared with friends, who’s completed activities can all be seen on the “Feed” page.
 - b. Rationale: users who are not already motivated or have busy lives may feel even more demotivated when their streak breaks, turning them away from the app and associating the active lifestyle you are trying to promote with a bad feeling. This is made even worse when you can share your status with friends, making you feel behind compared to everyone else in your life.
 - c. Fix: get rid of streaks. Make the activity feed per group rather than general, so users can choose to avoid it more easily or only look at updates for certain groups they feel comfortable looking at.
- 11. H6: Recognition Rather Than Recall / Severity: 4 / Found by B
 - a. Description: users are forced to remember the task that they originally rolled, if they receive a task and navigate away to another page such as the social feed.
 - b. Rationale: users have to recall their tasks that they rolled rather than seeing it visibly present somewhere (i.e., like viewing a task in progress). This allows for cheating, and easy manipulation of the application on the users’ end.
 - c. Fix: visually show task in progress app-wide
- 12. H5: Error Prevention / Severity: 4 / Found by B
 - a. Description: users can complete an assigned task even if they haven't truly done it. The system doesn't prevent falsified completions on the users end.

- b. Rationale: users may be incentivized to complete an activity if they become too busy or prefer another task, simply to re-roll or start over. A lack of confirmation or system checks on real-world completion makes it easy for users to game the system.
 - c. Fix: require a proof of completion.
- 13. H7: Flexibility and Efficiency of Use / Severity: 2 / Found by B
 - a. Description: there is a relatively long wait time between the time a user slides the completion button, and the next page pops up.
 - b. Rationale: users may be confused or annoyed at 3-4 second pause after completing the slider button. It may be worth it to improve the speed in which the next interaction appears to facilitate an improved UX.
 - c. Fix: improve speed of interaction flow.
- 14. H4: Consistency and Standards / Severity: 1 / Found by: A, B, C
 - a. Description: there are slight inconsistencies in the whitespace amongst several components on the "Congrats!" page (i.e., whitespace above/below "Pedro went on his third run this week" or alignment of "x3" and "x5" or whitespace between header/footer of pop-up).
 - b. Rationale: lack of uniformity in whitespace and location breaks users expectations of layouts and is visually distracting to some. Use a grid.
 - c. Fix: standardize whitespace and alignment of components.
- 15. H3: User Control and Freedom / Severity: 3 / Found by B
 - a. Description: there is no way to exit the task page if it is an unwanted activity.
 - b. Rationale: some users may feel trapped if they roll an activity they cannot physically complete or do not want to anymore. Many may manipulate the application by navigating to another page, and coming back to it or sliding the "complete" button. It is critical to balance user needs of tasks they are likely to complete, and holding them accountable.
 - c. Fix: provide a fixed number of re-rolls.
- 16. H2: Match between System and Real World / Severity 3 / Found by B
 - a. Description: there may be user confusion over when the "week" begins and ends (i.e., in the feature where you note "You've gone on 3 runs this past week"). Some users may believe it begins on Monday, while some may assume it's a running count of the past 7 days.
 - b. Rationale: user confusion over time intervals may make it much more difficult to track consistent progress. This is also inconsistent with the other standard that you use right next to it (i.e., "You've completed activities for 5 days straight"). Be consistent with the style of time interval you are using.
 - c. Fix: specify and standardize time interval ("Past Week" vs "Past 7 Days").
- 17. H8: Aesthetic & Minimalist Design / Severity: 2 / Found by A / Found by B
 - a. Description: on the share feed there is a kudos feature next to each profile, but this is redundant in design and the functionality of it is unclear to the user. It simply changes color when clicked.
 - b. Rationale: as a user, I have no clue what the purpose of giving or receiving a kudos is. There is no utility to the feedback I am receiving from a single kudo. The value of providing a kudo to another on the platform doesn't exist. If there was a count, on the other hand, then as a user I could measure popularity of an activity or receive social validation of my action which may motivate me further.
 - c. Fix: add metrics such as number of upvotes/kudos.

18. H4: Consistency and Standards / Severity: 1 / Found by A, B
 - a. Description: on the shared screen, there is misalignment between the first horizontal entry (Pedro) and the rest of the entries. Note the slight misalignment in the kudos sign and text entries.
 - b. Rationale: lack of uniformity breaks users expectations of layouts when screening the UI vertically top to bottom.
 - c. Fix: shift the first horizontal component a few pixels to the right to align with the rest.
19. H10: Help & Documentation / Severity: 2 / Found by A / Found by B
 - a. Description: there is a larger systematic and thematic significance of creating an activity; it looks like each activity is assigned a dice number upon activity creation (i.e., each activity has a corresponding dice face on the "My Activities" page). However, there is a lack of documentation of how this exactly works.
 - b. Rationale: as a user, I want to better understand what "Add to Dice" means when I create an activity. Am I limited to six ongoing activities at a given time? Does each addition count towards a face?
 - c. Fix: add an informational blurb or how-to on the "My Activity" page that bridges this disconnect in understanding.
20. H11: Accessible Design / Severity: 1 / Found by B
 - a. Description: there is minimal color contrast between the dates and the pink background on each activity, and the font size of the labels on the navigation bar are extremely small.
 - b. Rationale: low color contrast makes it difficult for visually impaired users to read.
 - c. Fix: increase color contrast and/or font size of both.
21. H8: Aesthetic & Minimalist Design / Severity: 2 / Found by D
 - a. Description: the roll button on the home page is redundant.
 - b. Rationale: there is text above the die telling the user to roll, and the die is animated indicating to the user that it should be rolled.
 - c. Fix: remove the roll button as it is unnecessary.
22. H10: Help & Documentation / Severity: 1 / Found by D
 - a. Description: text description on home page (where roll die is) is unclear.
 - b. Rationale: I don't really understand what it means to have a task in progress. Does this mean if I do have a task in progress I can't roll the die, or am I able to have multiple tasks at one time?
 - c. Fix: update the description to more appropriately describe what having a task in progress means.
23. H11: Accessible Design / Severity: 2 / Found by D
 - a. Description: color of navbar doesn't contrast strongly enough with the background.
 - b. Rationale: the gray used for the navbar background and the white for the home page background are too similar in color. This may make it difficult for users with low vision to be able to distinguish between the two sections.
 - c. Fix: darken the color of the navbar at the bottom to increase the contrast between the navbar and the homepage background.
24. H6: Recognition not Recall / Severity: 3 / Found by D
 - a. Description: main action of navbar (roll item) is not emphasized enough.
 - b. Rationale: the roll tab in the navbar is the feature that the app is built around and in its current state it is not emphasized as much as it should be.

- c. Fix: center the roll tab in the middle of the navbar and maybe add an alternate background to it (similar to Instagram's navigation) to highlight its importance.
- 25. H4: Consistency & Standards / Severity: 2 / Found by A, D
 - a. Description: logo on home page and die are the same image and as a result conflict in their uses.
 - b. Rationale: by using the same image for the logo on the roll page and for the die animation, it obfuscates what item is used for which action (rolling vs viewing logo).
 - c. Fix: change one of the images to be different from the other and keep this consistency throughout the rest of the app.
- 26. H4: Consistency & Standards / Severity: 1 / Found by A, D
 - a. Description: feed icon in navbar could be more apt.
 - b. Rationale: the feed icon is currently a heart which to me indicates the viewing of likes, when instead we are trying to view a feed.
 - c. Fix: change the feed icon in the navbar from a heart to a list of some sort to indicate that we are looking at a feed rather than who has liked our posts (or something of that sort).
- 27. H1: Visibility of System Status / Severity: 2 / Found by D
 - a. Description: unclear what I should do while I am in the midst of completing my task.
 - b. Rationale: when we get assigned to "go for a run in the next 24 hours," I am unsure how I should proceed. Do I close the app and come back to it later, upon which I will be met with the same screen, or am I expected to keep the app open until I complete this task?
 - c. Fix: maybe redirect users to activities page where they can view current tasks and other tasks.
- 28. H8: Aesthetic & Minimalist Design / Severity: 1 / Found by D, C
 - a. Description: Board game graphic on the page labeled "go for a run in the next 24 hours" is slightly confusing.
 - b. Rationale: I don't really know what this graphic is trying to symbolize. Is it separated out because there are going to be multiple parts I have to go through before I complete the task? Users may be confused, as the nodes look like buttons due to their color previously having been used only for other interactable elements, and may want to press them.
 - c. Fix: change the graphic to be something more fitting to the current screen, perhaps something that matches the task like an individual running.
- 29. H3: User Control & Freedom / Severity: 2 / Found by B, D, C
 - a. Description: inability to undo the completion of a task in the event that we accidentally swiped.
 - b. Rationale: while I like that the slider is used for the completion of a task (makes it difficult to just tap a button which fits in with the integrity value of the app), I still think there should be an option to undo the completion of a task in the event of an accidental swipe.
 - c. Fix: add an option to undo the completion of a task, perhaps in the activities page.
- 30. H2: Match b/w System & World / Severity: 3 / Found by D
 - a. Description: have to click button even after completion of task slider fully slid.
 - b. Rationale: when I fully slide the completion slider for a task, I am then prompted to click on the arrow icon to continue. I feel like this is counterintuitive to the whole point of the slider, and does not follow a logical order / progression through the app.
 - c. Fix: ensure that the user does not need to click on the arrow icon to continue, that the slider itself is enough.
- 31. H11: Accessible Design / Severity: 1 / Found by D

- a. Description: buttons are a bit small on the “share progress” page.
 - b. Rationale: I think the buttons on the “share progress” page are a little bit too small which make it difficult for users with accessibility constraints.
 - c. Fix: make the buttons slightly bigger.
32. H12: Value Alignment & Inclusion / Severity: 3 / Found by D
- a. Description: congratulating the user for a job well done (“Congrats!” text on share progress page) is not emphasized enough.
 - b. Rationale: one of the main values for this app is motivation, and I feel as though the completion of a task section does not praise the user enough for a job well done.
 - c. Fix: the “Congrats!” text should be enlarged and perhaps should be a different color or an animation should be incorporated to highlight it.
33. H12: Value Alignment & Inclusion / Severity: 3 / Found by D
- a. Description: roll again button on “share progress” page goes against integrity value encoded in the app.
 - b. Rationale: what is stopping me from rolling again and then immediately completing the task and then rolling again? I think having the roll again button directly in the “share progress” page may prompt some disingenuous behavior from the user.
 - c. Fix: remove the button from the share progress page or set a timer that the user must wait for before they complete another task
34. H4: Consistency & Standards / Severity: 1 / Found by A, D
- a. Description: “Pedro” used instead of “you” for the share progress action item.
 - b. Rationale: instead of using a first name it should say “you”. In my mind, I read that one of my friends had completed their third run and I am going to share their progress, which doesn’t really make sense.
 - c. Fix: simple fix is to just change the first name to “you”.
35. H8: Aesthetic & Minimalist Design / Severity: 1 / Found by A, D
- a. Description: logo hidden behind notch on my phone
 - b. Rationale: when running through the prototype on my phone, part of the logo is hidden underneath the notch on my phone, which means I can’t see all of it.
 - c. Fix: fix the sizing / spacing so that the logo is never hidden.
36. H12: Value Alignment & Inclusion / Severity: 2 / Found by B, D
- a. Description: no showing of how many people have given kudos to another person for a certain task.
 - b. Rationale: feeding into the motivation value encoded in the app, I feel as though you should be able to see who else is giving your friends kudos for doing their tasks.
 - c. Fix: add a feature whereby you can see who has given someone kudos for a certain task they’ve done.

Task Two: Create activity and check activity status

37. H3: User Control & Freedom / Severity: 3 / Found by A
- a. Description: no “other” option shown for activity category.
 - b. Rationale: may block users from being able to log the activities they want.
 - c. Fix: add an “other” type in option and/or custom categories that can be reused.
38. H1: Value Alignment & Inclusion / Severity: 1 / Found by A
- a. Description: dates on Activities does not seem intuitive if the app is meant for habit building.

- b. Rationale: it's unclear to me what the dates are for if you're meant to be repeating the activities for habit-forming.
 - c. Fix: choose a better indication that matches your intention with tasks/activities! it could make sense to have multiple types of tasks that are depicted using different colors or something.
- 39. H4: Consistency & Standards / Severity: 2 / Found by A
 - a. Description: streak lengths don't match on streak tile in profile view.
 - b. Rationale: it would be confusing for users if the app says that they both have a 7 and 5 day streak.
 - c. Fix: make sure it's standardized and pulling from the same data object.
- 40. H4: Consistency & Standards / Severity: 1 / Found by A
 - a. Description: inconsistency in margin size on "Create Activity" screen.
 - b. Rationale: some components and sections are closer together than others.
 - c. Fix: determine the spacing you want for those types of layouts and keep it consistent.
- 41. H4: Consistency & Standards / Severity: 2 / Found by A
 - a. Description: inconsistencies in text boxes between "activity name" and "description" on Create Activity screen.
 - b. Rationale: it's not clear to me that the activity name can be changed based on its appearance and how different it looks from the other textboxes.
 - c. Fix: converge on a way to depict text boxes so users are clear on which element of the form they are meant to fill in.
- 42. H3: User Control & Freedom / Severity: 2 / Found by A
 - a. Description: no clear and easy way to exit out of the "under construction" page when clicking on Group name on activities page.
 - b. Rationale: makes it frustrating if you get stuck on a construction page and don't know how to exit out of it.
 - c. Fix: add an "X" symbol that would take you back to the screen you were on before.
- 43. H4: Consistency & Standards / Severity: 1 / Found by A
 - a. Description: inconsistent spacing of the 3 dots on group tiles on the activities tab.
 - b. Rationale: another cosmetic thing! The location of the three dots on each group tile is slightly different.
 - c. Fix: choose a spacing standard and stick to it!
- 44. H6: Recognition not Recall / Severity: 2 / Found by A
 - a. Description: user's name potentially being obstructed on profile view when scrolling.
 - b. Rationale: it would be annoying if you're scrolling on their account and you have to scroll all the way back up to see who you're looking at.
 - c. Fix: freeze their username at the top or something so that it is sticky and stays there as you scroll.
- 45. H4: Consistency and Standards: Severity: 2 / Found by A, C
 - a. Description: each activity is written in a coral colored squoval shape.
 - b. Rationale: the coral color has previously only been used for interactable items, mostly buttons or links. These are not interactable and may confuse users who will try to tap on them.
 - c. Fix: make this a different color. It would probably be good to have more than two colors for your app anyways.
- 46. H7: Flexibility and efficiency of use / Severity: 2 / Found by C

- a. Description: users can create an activity on the activities page.
 - b. Rationale: because creating an activity is a very common task, users may want a more efficient way to achieve it.
 - c. Fix: add a floating “new activity” button to all pages which users can press to create a new activity.
47. H4: Flexibility and efficiency of use / Severity: 3 / Found by C
- a. Description: categories are chosen by scrolling through a list.
 - b. Rationale: users may not want to sift through a list every time they make an activity. There should be an ability to type in and search for a category.
 - c. Fix: add a search button or empty category which you can type into.
48. H11: Accessible design / Severity: 2 / Found by C
- a. Description: all fonts seem to be quite small.
 - b. Rationale: some users may not be able to read this small text.
 - c. Fix: make text bigger, or add a setting to be able to change the font size
49. H3: User Control and Freedom / Severity 3 / Found by A, B
- a. Description: there is no way for the user to set exactly when the activity recurs.
 - b. Rationale: if I toggle the “Recurring?” button, then I expect as a user to be able to set when this activity recurs. In the present, I am confused as a user about when the activity would recur? Is it the moment when I create the activity? What if I want it to recur at a custom day/time?
 - c. Fix: create a time range/calendar for when activity recurs.
50. H7: Flexibility and Efficiency of Use / Severity: 3 / Found by A, B
- a. Description: it is unclear if users can view the other activity types in the category field. There is no clear path to view the other options in the category.
 - b. Rationale: based on the UI, users may find it intuitive to scroll right. However, there is no cue on the screen to trigger this action. Further, if there are a large number of categories, then the horizontal scrolling would be highly frustrating for users and not efficient. Also, curious to see how the UI would handle niche activity categories that require custom inputs.
 - c. Fix: add a horizontal scroll bar.
51. H4: Consistency and Standards / Severity: 2 / Found by B
- a. Description: there is a lack of whitespace which skews the distribution of content to be cluttered in the first half of the screen, especially as the “Description” is filled out.
 - b. Rationale: the lack of whitespace skews the distribution of content to be cluttered in the first half of the screen, especially as the “Description” is filled out. There is a lot of whitespace in the bottom half that can be strategically leveraged to align the screen design/format similar to the one before it.
 - c. Fix: incorporate more whitespace around text-heavy components.
52. H8: Aesthetic and Minimalist Design / Severity: 1 / Found by B
- a. Description: “Activity Name” is redundant.
 - b. Rationale: on the “Create Activity” page, it is intuitive for the user that they will be responsible for specifying the activity. Your font choice and size communicates this pretty well, such that “Activity Name” is not necessary.
 - c. Fix: remove “Activity Name”.
53. H3: User Control and Freedom / Severity 4 / Found by B
- a. Description: users cannot specify the activity that they want to create.

- b. Rationale: currently, the application has “Run for 30 minutes” hard-coded as the activity type one can create. Given this is a critical component for the UX here, what would the user input field look like? A text entry box?
 - c. Fix: extract user input for activity creation.
- 54. H5: Help Users With Errors / Severity 3 / Found by B
 - a. Description: users do not have system visibility into which fields of content are required for the “Add to Dice” button to appear. They may want to skip the description, yet are confused when the “Add to Dice” button doesn’t allow them to.
 - b. Rationale: currently, if users fill out a description and category, they will be able to add their activity. However, there is no cue on the screen that tells users that filling out a description and category is required if they forget one.
 - c. Fix: highlight required fields if the “Add to Dice” is clicked prematurely (i.e., asterisks or upfront instructions demarking required inputs).
- 55. H4: Consistency and Standards / Severity: 1 / Found by A
 - a. Description: style and design choices for all components (namely - “Recurring?”, “Description”, “Category”, and “Group Activity?”) are not uniform/standard.
 - b. Rationale: as a user, I can see similar style choices made for Recurring/Group Activity (i.e., smaller font) versus Description/Category. However, I would expect such components to be grouped together on the screen rather than separated as is.
 - c. Fix: standardize font choice/size across all categories to avoid increasing design complexity on the UI or re-order sequence of components.
- 56. H6: Recognition Rather Than Recall / Severity: 3 / Found by B
 - a. Description: users cannot differentiate whether an activity is a group activity or an individual one on the “My Activities” page.
 - b. Rationale: users have to remember which activities are recurring and which ones are with other friends when they finish creating an activity. Such information is not saved on the “My Activities” screen post-creation.
 - c. Fix: display key information such as “Recurring” or “With X Friends” on My Activities.
- 57. H1: Visibility of System Status / Severity: 4 / Found by B
 - a. Description: when finalizing the creation of an activity, users click on “Add to Dice.” However, the position number of the activity on the dice is not visible to users.
 - b. Rationale: based on the language used to create an activity, users assume that they are adding an activity that counts towards six of their activities. However, what happens if I surpass six activities? Will an activity be replaced? If the number of activities is capped at six, how would I know the activity counts as my last one?
 - c. Fix: display the position number of a certain activity during its creation (as represented by the dice count in the “My Activities” page).
- 58. H4: Consistency and Standards / Severity: 0 / Found by A, B
 - a. Description: the alignment of the headers and sub-headers are not consistent.
 - b. Rationale: as a user, I land on the “Roll” page where all of the headers and subheaders are aligned in the center. When I move through the application, I expect to see the same formatting across all other pages.
 - c. Fix: standardize alignment of “My Activities” and “Groups”.
- 59. H4: Consistency and Standards / Severity: 2 / Found by B
 - a. Description: the numbers on the dice on the activities panel in “My Activities” does not follow a clear standard or pattern.

- b. Rationale: as a user, I am confused as the dice face changes between activity two and three as I scroll to the right of the panel (namely, the dice count goes from 1 to 2). Why?
 - c. Fix: either keep all of the dice faces the same, or incrementally increase them by one for each activity.
- 60. H8: Aesthetic & Minimalist Design / Severity: 1 / Found by D
 - a. Description: settings icon isn't properly aligned.
 - b. Rationale: settings icon should be vertically-aligned with app logo and horizontally-aligned with end of tabs list.
 - c. Fix: just change the positioning of the settings icon so it is aligned according to a grid system.
- 61. H4: Consistency & Standards / Severity: 2 / Found by A, D, C
 - a. Description: section is defined as my activities which is confusing.
 - b. Rationale: up until this point, the majority of the app has been using the word tasks, whereas now we have switched to using the word activities.
 - c. Fix: stick to one word, either tasks or activities. I prefer tasks
- 62. H3: User Control & Freedom / Severity: 4 / Found by D, C
 - a. Description: inability to delete tasks.
 - b. Rationale: there should be an option to delete tasks, in the event that we no longer want to have to complete them or if we create on accidentally
 - c. Fix: add an option button to the activity section to allow for the easy deletion of certain tasks.
- 63. H10: Help & Documentation / Severity: 2 / Found by D
 - a. Description: I don't really understand what the groups are in this task flow.
 - b. Rationale: there is no explanation as to why we are forming groups. Am I completing tasks with friends? Am I assigning tasks to friends? Are these the only people who can see my kudos?
 - c. Fix: explain what creating a group means to the other, maybe through a modal or when the user takes an initial tour through the app.
- 64. H12: Value Alignment & Inclusion / Severity: 4 / Found by D
 - a. Description: ability to create an activity / task makes the randomisation of selecting a task kind of redundant.
 - b. Rationale: after rolling the die enough times, and making the tasks recurring, rolling the die will then become obsolete as all the tasks are now recurring.
 - c. Fix: remove the ability to create an activity, or completely separate it from the randomisation of rolling the die i.e. I should be able to enter the name of the task when I create the activity, not have it preset from my rolling of the die.
- 65. H8: Aesthetic & Minimalist Design / Severity: 1 / Found by B, D
 - a. Description: activity dice icons will run out after six activities.
 - b. Rationale: I like the dice icons in the top left of the activities tabs, but what is going to happen if you have more than six dice, will it reset?
 - c. Fix: use a numbering system, or find a way to incorporate larger-sided die!
- 66. H2: Match b/w System & World / Severity: 3 / Found by A, B, D
 - a. Description: when recurring selected for "create activity" nothing popups.
 - b. Rationale: we are not shown any option to select how often we want the task to recur, we just select whether it is recurring or not.

- c. Fix: add in a date / time or calendar component that allows you to select when the task should take place and how often it should recur.
- 67. H8: Aesthetic & Minimalist Design / Severity: 2 / Found by D
 - a. Description: when selecting which friends to add to a group activity, dropdown list should highlight them once they are selected.
 - b. Rationale: the drop down should stay open and allow the selection of multiple people when one goes to create an activity, otherwise it is a pain if you can only add one person from the dropdown list at a time.
 - c. Fix: use a dropdown that allows for multiple selection and the highlighting of different options.
- 68. H8: Aesthetic & Minimalist Design / Severity: 1 / Found by B, D
 - a. Description: list of activities categories to select should not extend off the side of the app.
 - b. Rationale: there probably is not that many different categories and as such they should all be contained within the actual real estate of the app and not off to the side, where we will have to scroll.
 - c. Fix: use a dropdown to select the category instead of current tabs design.
- 69. H2: Match b/w System & World / Severity: 2 / Found by B, D
 - a. Description: text for "add to dice" button is confusing.
 - b. Rationale: I am presuming that this button creates a new task, but I am unsure what adding to dice means. Is this a different part of the app that I'm going into now?
 - c. Fix: change text to be "Create Activity" or something of that sort.
- 70. H8: Aesthetic & Minimalist Design / Severity: 1 / Found by D
 - a. Description: group selection button in "Create Activity" section alternates between radio button and checkbox.
 - b. Rationale: minor error but could confuse the error if these are switching between each other, maybe indicating that you could add either multiple groups (for when it is a checkbox) or a single group (for when it is a radio button).
 - c. Fix: just use a radio button and remove the checkbox.
- 71. H4: Consistency & Standards / Severity: 3 / Found by D
 - a. Description: what's the primary difference between "current" and "in progress"?
 - b. Rationale: I am assuming "in progress" relates to tasks that must be completed in the next 24 hrs and "current" are recurring tasks, but how do we differentiate the two once we have created a new recurring activity that we have been assigned from the randomized dice. This is both "in progress" and recurring.
 - c. Fix: get rid of one of the tabs in the "create activity section", whether that be "current" or "in progress".

Task Three: Create group activity

- 72. H3: User Control & Freedom / Severity: 3 / Found by A
 - a. Description: inability to search friends when adding to group activity.
 - b. Rationale: if users have a lot of friends, it will be difficult to scroll through them all
 - c. Fix: add search ability to adding friends.
- 73. H3: User Control & Freedom / Severity: 3 / Found by A
 - a. Description: no way to remove someone from a group activity.

- b. Rationale: adding people is clear but I don't see a way to remove group members! Which means a user would have to restart entirely in order to remove someone.
 - c. Fix: add a button to remove members from a group that you accidentally added. An "x" on their name tile seems appropriate!
- 74. H8: Aesthetic and Minimalist Design / Severity: 2 / Found by B
 - a. Description: the drop down for "Group Activity" clutters the UI, and interferes with the navigation bar at the footer.
 - b. Rationale: there is little to no whitespace between the navigation bar and the core screen, as in your other pages. When the drop down appears, it hurts the aesthetic of the UI as there is limited surrounding space for the menu to breathe.
 - c. Fix: limit "Group Activity" drop down to three members, and include a scroll bar.
- 75. H7: Flexibility and Efficiency of Use / Severity: 4 / Found by B
 - a. Description: users cannot add multiple members to a given group activity; it seems that the UX/UI only allows for activities of up to 2 people.
 - b. Rationale: when users click "Group Activity," they are only able to add a single individual to their activity. This severely restricts users as they can only log solo or duo activities and discourages true group activities.
 - c. Fix: add ability to select multiple group members.
- 76. H12: Value Alignment and Inclusion / Severity: 2 / Found by B
 - a. Description: user profiles are labeled based on their initials (i.e., "NS" or "PC"). When a user attempts to add their friend to a group activity, such initials represent their profile.
 - b. Rationale: the sole use of initials to represent user profiles strips a lot of important identity characteristics and negatively affects the representation of diversity on the platform. For example, for users with non-English names, their initials may not be meaningful identifiers and supported by the two-letter UI code.
 - c. Fix: display a photo of the individual rather than their initials as an identifier.
- 77. H4: Consistency & Standards / Severity: 2 / Found by A, D
 - a. Description: using the word "Turno" instead of the die image for the profile page prompts confusion.
 - b. Rationale: the header of the app should be standardized and consistent across all pages so the app should either show "Turno" or the die image.
 - c. Fix: just "Turno" or the image of the die across the board on the app.
- 78. H8: Aesthetic & Minimalist Design / Severity: 1 / Found by B, D
 - a. Description: stats dice icons will run out after six stats.
 - b. Rationale: similar to the activities, we will run out of numbers after six stats, as a die only has six sides. We want to be able to let a user have more than six stats.
 - c. Fix: use a numbering system, or find a way to incorporate larger-sided die!
- 79. H12: Value Alignment & Inclusion / Severity: 1 / Found by D
 - a. Description: should be able to share stats with friends.
 - b. Rationale: in keeping with the values encoded aspect of the app, particularly motivation, we should enable individuals to share their stats with their feed so that they can encourage one another.
 - c. Fix: add a share option to the stats to allow sharing with feed.

No Specific Task

- 80. H4: Consistency & Standards / Severity: 1 / Found by A

- a. Description: some pages say "Turno" at the top and some have the dice -- keep this consistent.
 - b. Rationale: It will just be prettier if it's more consistent.
 - c. Fix: choose one to stick to.
81. H4: Consistency & Standards / Severity: 1 / Found by A
- a. Description: inconsistent spacing of header on each tab.
 - b. Rationale: very different header appearances on each page -- would love some consistency in how headers are used and how they look!
 - c. Fix: choose what you want the header to inform the user and standardize that across the app!
82. H7: Flexibility & Efficiency of Use / Severity: 4 / Found by A
- a. Description: there doesn't seem to be an intuitive place to add friends on the platform.
 - b. Rationale: I see that Pedro has a friends list but I don't see anywhere from which adding friends makes sense!
 - c. Fix: you may need to rethink parts of your UI design for this and add a new flow to think about.
83. H12: Value Alignment & Inclusion / Severity: 2 / Found by A
- a. Description: saying "Pedro" instead of "You" on the feed makes the platform feel less personalized.
 - b. Rationale: saying Pedro both makes it less personalized and can cause confusion if there are others named Pedro on the platform.
 - c. Fix: change anything associated with the account to "You" instead of first name.
84. H4: Consistency and Standards / Severity: 2 / Found by C
- a. Description: profile and Stats pages are accessed using a slider in a gray and white color.
 - b. Rationale: the slider function has previously not been used to change pages. This gray color has also not previously been used. Users may be confused as to whether this is interactable or a different type of element.
 - c. Fix: make these two separate buttons with the same coral color previously used for all interactable elements.
85. H4: Consistency and Standards / Severity: 3 / Found by C
- a. Description: there is a big red circle on the streaks element.
 - b. Rationale: I am not sure what this circle means, and it doesn't seem to currently have a function. Users may be confused, as this color has only previously been used for buttons that can be clicked.
 - c. Fix: remove this circle, unless there is a good reason that it is there which I don't realize.
86. H5: Error Prevention / Severity: 1 / Found by C
- a. Description: some pages are not built and show an error message.
 - b. Rationale: if the function has not been built, there is no point making that page accessible in the first place.
 - c. Fix: remove any links that link to unbuilt pages.
87. H1 Visibility of System Status / Severity: 3 / Found by D
- a. Description: unsure which page is the home page.
 - b. Rationale: I am kind of unsure which page is supposed to be the main page of the app. Is it the feed, the rolling of the die, or the profile. Which part of the app is most important in this regard?

- c. Fix: choose which aspect of the app you want to highlight most (motivation which corresponds to feed / profile, integrity which corresponds to creating an activity, or playfulness which corresponds to rolling the die) and make this page the home.

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	1	1	0	1	3
H2: Match Sys & World	0	0	1	3	0	4
H3: User Control	0	1	3	5	2	11
H4: Consistency & Standards	1	9	9	4	0	23
H5: Error Prevention	0	1	0	2	1	4
H6: Recognition not Recall	0	0	2	2	1	5
H7: Efficiency of Use	0	0	2	2	2	6
H8: Minimalist Design	0	10	4	0	0	14
H9: Help Users with Errors	0	0	0	0	0	0
H10: Help & Documentation	0	1	2	1	0	4
H11: Accessible Design	0	3	1	1	0	5
H12: Value Alignment & Incl	0	1	3	3	1	8
Total Violations by Severity	1	27	28	23	8	87

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 (in %)

Severity / Evaluator	Evaluator A	Evaluator B	Evaluator C	Evaluator D
Sev. 0 Ex: Eval A count / total sevs 0 in table #3	100.00	100.00	0.00	0.00
Sev. 1 Ex: Eval A count / total sevs 1 in table #3	51.85	25.93	11.11	44.44
Sev. 2 Ex: Eval A count / total sevs 2 in table #3	39.29	35.71	28.57	39.29
Sev. 3 Ex: Eval A count / total sevs 3 in table #3	30.43	30.43	17.39	30.43
Sev. 4 Ex: Eval A count / total sevs 4 in table #3	12.50	75.00	12.50	25.00
Total (sevs. 3 & 4) Ex: Eval A = sum(sev 3: sev 4 counts) / sum(sev 3: sev 4 in table #3)	25.81	41.94	16.13	29.03
Total (all severity levels) Ex: Eval A total sev count / total sevs (green cell) in table #3	39.08	35.63	18.39	36.78

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

5. Summary Recommendations

Based on the heuristic evaluation, key patterns in the violations we noted include inconsistencies in UI elements, designs that lack functional purpose, general user experience flow, and limited tools for making friends and building communities. In order to improve the user experience of Turno, we recommend the following specific changes.

First, we identified issues with task completion. More specifically, we are worried about users who may drop off from completing a task and falsify their completion record. Alternatively, they may not truthfully complete the activity and exaggerate their performance. It will be interesting to see how you define and enforce accountability on this platform. In order to make the task completion more accountable, we recommend requiring users to provide photographic or videographic proof of activity completion.

Second, we identified a mismatch between the intended values of the app and the sharing and streaks function. We could recommend evaluating this function, what value it brings to the app, and whether it is necessary. Additionally, if you were to push this app in a more community based direction, we would recommend adding the ability to view other's profiles, add friends, and converse with friends. For instance, we don't see an intuitive place to search for and add friends right now with the way your current navigation is set up. Additionally, the ability to add multiple users simultaneously or more than two users to a group is not present. As of now, the community aspect seems like an afterthought to the main functionality of the app.

Third, we noticed that users are not able to specify the time condition under which their activity would recur. This is a major problem because it limits the user's control over when they want to plan a certain activity in their schedules. For this, we recommend taking inspiration from the way recurring activities are formed on Apple iCalendar, and build a solution that will allow users to specify custom recurrence schedules of an activity. This issue is reflected in other instances where constraints are not clearly defined, such as there not being a clear way to display how many activities a user can have at once. To fix this, we recommend more clearly defining the relationship between the dice and the tasks, such as through an onboarding process where the user learns how the app works or more intuitive visual design.

Finally, we believe that the visual and UI design of the app can be polished. For example, we would recommend building a clear design and color system that differentiates between primary and secondary interactions. We would also recommend adding a clear, apparent central home base or place where users should always return to in order to improve user landing and flow through the application. Additionally, there are inconsistencies to spacing and alignment which could be resolved by using a grid during the design process.

Aside from violations, we recommend incorporating interactive features like device vibrations, a rewards system, personalized activity recommendations, and a more engaging feed. Ultimately, Turno has a very strong foundation and a great medium-fi prototype, and we look forward to seeing how the recommendations are addressed which will drastically improve the community-feel and user flow through the application.

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: Value Alignment and Inclusion

- The design should encode values that users can understand and relate to.
- It should make a diverse group of users feel included and respected.
- The design should prevent the reproduction of pre-existing inequities and not create additional burdens for members of disadvantaged populations.