# Heuristic Evaluation of flowspace

#### 1. Problem/Prototype Description

Flowspace is a flow session manager that aims to enhance productivity so that people can disconnect from the deluge of notifications and spend more time doing meaningful and intentional work.

#### 2. Violations Found

## 1. H1. Visibility of System Status / Severity: 2 / Found By: A, C

No indication how the "distractions/hour" graph is counted. Is "distractions/hour" how many times the user visits a blocked app during the flow? Times the user pauses and restarts flow? Times the user unblocks an app in the middle of flow? Users may be confused about exactly what the app is tracking, making the data not very insightful.

Fix: Add a legend that has a more specific label or add an info icon you can tap to get more information

## 2. H1. Visibility of System Status / Severity: 3 / Found By: A, B

While flowing, you have to click on the screen to see time remaining. It is unclear what "see options" is referring to and it's not clear if the flow is actually in progress. Furthermore, the user has to click every few seconds to prevent the time from disappearing. This violates the heuristic because the user doesn't know if the timer is running while on the flow's main page. This information about the user's status should be easily visible throughout the session, without having to tap on the screen. Fix: Show a countdown timer on the screen without needing an additional click every few seconds. Perhaps audible cues every 10-15 minutes would also be something to consider.

## 3. H1. Visibility of System Status / Severity: 3 / Found By: A, B

On the journal timeline page, there's no indication of how the time spent on an activity contributed to your weekly goals. The context of what the weekly goals were would give insight into how past sessions helped us progress to reach our goals. This violates H1 because our progress of the goals isn't clear.

Fix: Replace numeric 'total minutes flowing' data with a progress bar that shows what

percentage of flow they have achieved/have remaining. This simplifies data interpretation on the user's end by displaying the data in a relative fashion.

## 4. H1. Visibility of System Status / Severity: 4 / Found By: A, B

After finishing a flow, if a user wants to add more time to keep flowing, clicking the "Add more time and keep flowing" button takes you back to the starting screen for a brand-new flow. This violates the heuristic because there is no confirmation or indication that you are continuing a flow or that your past flow was recorded. Users may be confused if all previous progress was lost and if this is a brand-new flow. Fix: Change the top subheading "flow for" to be "continue to flow for another" or something that indicates this is a continuation of a flow and change the "Begin flow" button to be "Continue flow"

# 5. H1. Visibility of System Status / Severity: 4 / Found By: B

It is unclear what Flowspace is blocking. From the setup screen, it is not said what Flowspace is blocking — whether it's notifications for each app selected, or if entire apps will be blocked, can the user override a block in the middle of a flow, etc. This information is important in understanding what a core feature of the app is. Fix: Specify what "blocking" entails on the setup page.

# 6. H1. Visibility of System Status / Severity: 4 / Found By: C

It is unclear how Flowspace is blocking. From the setup screen, it is also ambiguous how Flowspace is blocking these apps. For example, will Flowspace record the user's screen to know whether they visited a blocked app? What user data is Flowspace utilizing? Being transparent about this is crucial to understanding how other features of the app function and establishing trust with the user. This follows the principle of no action with consequences to users should be taken without informing them.

Fix: Communicate to the user what Flow is doing behind the scenes to block. Ask permission for user data if necessary, and share with the user what, when, and why they will use it. Maybe through a series of popups in onboarding, or later in a settings tab.

# 7. H1. Visibility of System Status / Severity: 2 / Found By: A, C

There is no confirmation that a new goal has been set or a reflection has been

saved after the user pressed on the button. Users can only check if the task went through by physically visiting the goals or reflection page, which is too long of a feedback loop.

Fix: Provide notification that the user input has been successfully completed instead of immediately directing the user to the next screen.

8. H2. Match Between System and the Real World / Severity: 4 / Found By: B, C It is indistinguishable whether the list of apps on the setup screen are bullets or checkboxes. The circles are an ambiguous size and the instructions do not give any indication what they represent. Because of this, it is uncertain whether the user is supposed to check off apps for Flowspace to block, or whether the user is supposed to go to settings to block these apps themselves. Even if the buttons are clickable, the presence of radio buttons imply that we can only check one distraction. Typically, in other applications and forms, a circular radio button is associated with selecting only 1 choice (e.g. multiple choice test or in Google forms), while a square box is associated with selecting multiple choices.

Fix: Convert the radio buttons to square checkboxes to make it more clear that users can select multiple distractions that they want to block.

9. H2. Match Between System and the Real World / Severity: 3 / Found By: C Rating "Purpose" on a 1-5 scale is unfamiliar. While productivity is often quantified, "Purpose" is a rather abstract concept and not typically something people numerically evaluate, leaving users lost as to how to rate it. Fix: Clarify by adding what 1 represents and what 5 represents on the scale or change "Purpose" to a synonym that has more quantitative associations.

10. H2. Match Between System and the Real World / Severity: 3 / Found By: C The questions listed underneath "Purpose" do not align with the typical definition of purpose. Proud and energized/satisfied/motivated is a rather wide range emotions and not all of them are primary associations with purpose?

Fix: If the aim is to have the user reflect on goal-oriented work, try rephrasing the question such as "How much intentional work did you feel you completed?". Or if the aim is to get the user to reflect on their feelings during flow, consider changing "Purpose" to maybe something like "Energy" and name 1 or 2 feelings instead of 4. Whichever you choose, make sure this "Purpose" function is included in what the app does in onboarding.

#### 11. H2. Match Between System and the Real World / Severity: 2 / Found By: C

The entries in the tables on the Timeline page are bolder than the headers, going against common expectations. Headers are usually bolder compared to entries in most user interfaces. Additionally, it would make sense for the dates to be emphasized since the page is called "timeline".

Fix: Make the date headers bolder than the entries

## 12. H2. Match between System and World / Severity: 4 / Found By: B

On the "Begin Flow" page, it is not clear what the distraction setting is or where we set this. This jargon might make the user a little bit confused about what each distraction setting choice means. Additionally, the options for the distraction setting are not intuitive at first.

Fix: Rename the distraction setting to something more intuitive and in-line with what the different settings mean.

## 13. H2. Match between System and World / Severity: 3 / Found By: A

'Distraction Setting' is not descriptive enough or a concept that is familiar to users. For example, it is unclear what a Distraction Setting of 'default' means. Fix: Change the terminology 'Distraction Settings' to 'Settings: Block the following distractions:" to make the language more straightforward.

## 14. H2. Match between System and World / Severity: 1 / Found By: A

The terminology of the Journal feature can be improved. The word 'timeline' sounds more like a flow session is planned rather than those that have already been completed.

Fix: Change the 'timeline' tab to 'history' tab. History more accurately implies that the following tasks were done.

# 15. H3. User Control and Freedom / Severity: 2 / Found By: B

When the user is on the screen to edit a goal, there are no ways to undo changes that a user might make to a goal. This violates heuristic 3 because it isn't supporting an undo button to rollback unwanted changes. (could also be heuristic 1). Fix: Add an "undo all changes" button at the bottom of the edit goal screen to make it clear that we can undo all recent changes.

## 16. H3. User Control and Freedom / Severity: 4 / Found By: B

The user isn't able currently to remove a goal that they set. When a user has passed the deadline for a goal, such as finishing a history project, they aren't able to remove that goal from their current goals.

Fix: Add a delete button in the Goals tab or support swipe functionality where swiping left on the goal gives the user an option to delete it.

## 17. H3. User Control and Freedom / Severity: 3 / Found By: B

After a user selects the distracting apps they would like to block during the onboarding process, they aren't able to go back and add/remove distracting apps from that list. Additionally, users cannot customize what apps they want to block. This violates this heuristic because users should have the freedom to select apps they want to be blocked during their flow and deselect them as needed. Fix: Add a settings menu or the like where users can update their distracting apps list and provide a control mechanism where they can input apps they would like to be blocked.

## 18. H3. User Control and Freedom / Severity: 4 / Found By: B, C

Clicking the "Add more time and keep flowing button" takes users back to the "Begin flow" page instead of continuing to the "you are flowing" screen. There is no confirmation that you have truly completed a flow and that statistics from the flow were recorded. Returning to starting a new flow goes against user goals/expectations to resume the timer of their current flow according to the button. This leads to loss of trust.

Fix: Have the user go back to the "you are flowing" screen with a continued timer. Another suggestion is that clicking on the Finish button could take you to a stats page about how the flow went, your time flowing to show, and your purpose and productivity inputs. This would give the user confirmation that their flow was fully recorded. Alternatively, you could include a pop-up celebratory notification message that the user has completed a flow session/goal.

# 19. H3. User Control and Freedom / Severity: 4 / Found By: C

After flowing once, the back button on History Project takes the user to "You are done", creating a loop without exit. There may be some cases where a user started a flow but wants to discard it. Currently, the user can not exit, go to the homepage or any other tabs unless they hit "Finish". This loss of control leads to frustration.

Fix: Reprogram the back button on History project to always go back to the home page instead of the previous screen

## 20. H4. Consistency and Standards / Severity: 2 / Found By: B

On the goals page, the user's progress on the various goals is unclear because of differing standards. Some goals are expressed in minutes per week while others are expressed in days per week (e.g. every day vs 100 minutes a week). It seems a little confusing that all the metrics are slightly different.

Fix: Standardize goals to be in terms of number of minutes a week or number of days per week, but not a combination of both.

## 21. H4. Consistency and Standards / Severity: 2 / Found By: B

Abbreviations used to denote time aren't consistent throughout the app. In some locations, the string "minutes" is used while in other "min" or "mins" are used. This is most notable on the edit goals page where default session length is expressed as "30 minutes" while last flow session is expressed as "30 min". More consistent notations would improve readability of the app.

Fix: Change all "min" and "mins" to be "minutes" throughout the app.'

# 22. H4. Consistency and Standards / Severity: 2 / Found By: B

The color scheme is orange/pink for all pages except the "Journal" screen. This causes the Journal screen to seem disjoint from the other screens in the app. Fix: Change the Journal screen to be orange/pink as well.

# 23. H4. Consistency and Standards / Severity: 1 / Found By: B

On the journal page, it is not clear whether "140 total minutes flowing" refers to time flowing today, this session, or this week. I assume that this would be for the week since that is the standard used for goals, but clarifying this to the user would prevent any such confusion as to what this time is referring to.

Fix: Change "140 minutes flowing" to "140 minutes flowing this week".

# 24. H4. Consistency and Standards / Severity: 4 / Found By: B, C

Inconsistencies between capital lettering and lowercase lettering is confusing and straining to the eyes. The capitalization of the text varies on different screens. For instance, the onboarding screen, journal, and goals titles are all in lowercase while the "Begin Flow" and "Edit Goal" pages have the first letters capitalized. On some screens like the "Goal" screen, the title is all lowercase but buttons on the page have the first letter capitalized as well. Users will inevitably notice the differences and have increased cognitive load.

Fix: Choose one — either start everything with a lowercase letter or start everything with uppercase, but don't mix and match.

## 25. H4. Consistency and Standards / Severity: 2 / Found By: C

The back carat is inside the button on the "You are done" page, but it is separated everywhere else in the app. Users may find it confusing that the two elements have suddenly been combined, which goes against their expectations. Furthermore, the difference draws unnecessary extra attention that the user must also hold in their memory.

Fix: Keep only one by removing either the button or the carat.

## 26. H4. Consistency and Standards / Severity: 2 / Found By: C

The second graph on the stats page is missing a blue bar in the legend. This is a noticeable slip up as users will inevitably look at the legend to check which color means what. It may lead to confusion or a bit of a careless impression. Fix: Add the blue bar

# 27. H4. Consistency and Standards / Severity: 1 / Found By: A, C

Numbers on the Y axis of the second graph are different sizes. This leads to some numbers being hard to read, and draws unnecessary attention/confusion Fix: Make all Y axis numbers across all graphs the same size

# 28. H4. Consistency and Standards / Severity: 2 / Found By: C

The Edit Goal screen says "Standard" under distraction setting while the Begin Flow screen says "Default". This decreases learnability as users may get confused whether these two options are the same or different things.

Fix: Choose one term and use it consistently throughout the app

# 29. H5. Error Prevention / Severity: 3 / Found By: C

Since it is unclear whether the apps list on the setup page are check boxes or bullets, users may click next without checking anything off. It is common for users to rush through onboarding. This means if it is not made obvious to users they should check the apps they want to block, they will probably just click "next" and miss this crucial step.

Fix: If the user hasn't checked anything and hits next, maybe generate a warning pop-up saying "Are you sure you don't want to block any apps? You can always

change this in settings". Also eliminate error prone conditions by making it clearer whether the circles are bullets or checkboxes.

## 30. H5. Error Prevention / Severity: 2 / Found By: A, B

On the flow screen, the pause and stop buttons are not intuitive. The icons look like shapes: the pause buttons registered as two vertical lines and the stop button looked like a square and I was not sure what their purpose was until I clicked them. Fix: Choose icon designs that better reflect the action of the buttons or write out the button text like "Pause"/"Play"/"Stop".

## 31. H5. Error Prevention / Severity: 2 / Found By: B

On the page to change settings about the flow (with amount of time to flow, distraction block, and distraction setting), there doesn't seem to be a lower or upper bound on how much time to flow. This would probably be important because we wouldn't want the user to input negative time or time above 24 hours. Adding a clear upper and lower bound would help prevent any errors in setting the amount of time. Fix: Have a pop-up if the user inputs a frame of time asking them to confirm if that's what they meant to type or letting them know that the flow time must be within a certain range.

# 32. H6. Recognition rather than Recall / Severity: 2 / Found By: B, C

Due to the small differences between the bolded text and units of current goals and the completed goals, it's hard to tell which goals have been finished and which ones are still in progress. On the right column, the units are different for each goal. Even though the units are written in words on the left, it would be much easier to scan down one list with all the same units to see how much has been completed. This adds a bit of an annoying load on the user to either remember the specific unit for each goal or repeatedly glance and forth. Fix: Put a checkmark next to the goals that have been completed or some other icon that makes it clear you have finished that goal for this week. Group goals with the same units together. Maybe also standardize the format — change "every day" to "7 times a week" and "once a week" to "1 time a week" to make it easier to scan the numbers.

# 33. H6. Recognition rather than Recall / Severity: 2 / Found By: C

The user could get confused by "Default session length" sounding too similar to "Default" from distraction settings. The same word relating to two different things could cause confusion, and puts the load on the users to remember which Default means which in different scenarios.

Fix: Permanently change "Default" from distraction settings to "Standard" or change "Default session length" to just "session length

# 34. H6. Recognition not Recall / Severity: 3 / Found By: B

While flowing, the user doesn't know the duration they had set the flow to be or what settings they had toggled on and off. Without this information present on the "you're flowing" screen, the user has to remember what they inputted in the previous screen. This could be important to remind users how long they initially wanted to flow and what they're allowed to do during the flow.

Fix: Add information on the "you're flowing" screen to remind users about the settings they had inputted in the previous screen.

# 35. H6. Recognition not Recall / Severity: 3 / Found By: B

In the tab before starting to flow where the user can customize length of time, distraction block, and distraction setting, there is no indication of what apps we had chosen to block in the distraction block. Without having this information on the screen, the user has to remember what they selected during the onboarding process. This might be difficult to remember if they completed onboarding a while ago or just forgot what they had entered.

Fix: Have a information button near distraction block that reminds the user what apps they had chosen to block

# 36. H6. Recognition not Recall / Severity: 1 / Found By: A

All flow work spaces and goals are displayed the same. This makes it hard for the user to associate which goals are priorities and differentiate between them. Fix: Color code different flow categories to aid recognition of the goals: one color for fitness, one for work, one for art, etc.

# 37. H6. Recognition not Recall / Severity: 2 / Found By: A

On the 'what will you focus on?' screen displays the current existing goals as floating text and not in a list fashion that aids recognition of the goals.

Fix: Indicate that the goals are a list by numeric labels, bullet points, etc. and also decrease the line spacing between them to show that these goals are one category through better spatial orientation. Further, to help the user recognize which goal should be prioritized, you should indicate urgency/least progress tasks so that the

users are more inclined to click and work on those flow sessions over the others.

## 38. H7. Flexibility and Ease of Use / Severity: 3 / Found By: B

For goals that only need to be completed monthly or yearly, it's not clear how this would be represented since all goals are expressed weekly in the "Add a New Goal" screen. In addition, for goals that might only need to be completed for a set period of time, there's no end date when setting a goal. For instance, if a user wanted to flow towards their goal of studying for a test, they might want to only have that as a goal until the day of the test.

Fix: In the "Add a New Goal" screen, include a duration option (to repeat this task for the next month, two months, etc) and also add more options for the goals to be 100 min per month, etc.

## 39. H7. Flexibility and Ease of Use / Severity: 3 / Found By: B, C

On the "Begin Flow" page, the user can only select if they want the distraction block on or off. For users that want to toggle some blocks (for example, if a user wanted to block Facebook but wanted to keep their email unblocked), this wouldn't be possible to do. Adding more flexibility in what distraction blocks were toggled on or off would help the user have a successful flow. Additionally, given Flowspace is an app that minimizes distraction, the option to turn off blocking distractions probably won't be used that much / doesn't need a whole separate category. A simpler information architecture would lead to more intuitive use.

Fix: Remove "Distraction block" entirely and just add the option of "none" to "Distraction settings". Another suggestion to think about could be to have options to

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isable some previously-set blocks within the "Begin Flow" page. Maybe you could have a dropdown where users could uncheck anything they need to be successful for this flow.

# 40. H7. Flexibility and Ease of Use / Severity: 2 / Found By: B

For users that have flowed multiple times before, they still have to specify how long they want to flow for in the "Begin Flow" page. This is an extra unneeded step given that each goal already has a default flow length of time. Expert users should be able to call up on past flows and simply repeat them instead of re-customizing all their flows. Fix: In the "Journal" page, maybe have a button to repeat the past flow or even include this button on the home page. Al could also be useful to prepopulate the flow settings based on what the user selected in the past to accomplish the same goal.

# 41. H7. Flexibility and Efficiency of Use / Severity: 2 / Found By: C

"What's this app for?" and "Set up" are a bit repetitive. Any unneeded parts of an onboarding process should be minimized so the user has less of a cognitive load. It was unclear what the purpose of half of the text on "What's this app for?" is. Mentioning "research backing minimal distractions" and "Flowspace helping you find the right experience" seemed like the only necessary info. Everything else is repeated elsewhere or not crucial.

Fix: Condense "What's this app for?" with "What is flow?" and/or "Set up"

# 42. H7. Flexibility and Efficiency of Use / Severity: 2 / Found By: C

Some people may want to automatically begin flow from Goals without having to go through an extra screen and manually set all the already inputted default settings As users are checking their progress, they would directly start flow for the goals they haven't completed yet. Speeding up this frequent action would be impactful for many users.

Fix: Automatically start flow with the goal's default settings when the user clicks "Flow'

# 43. H7. Flexibility and Efficiency of Use / Severity: 3 / Found By: C

Users have to go through 3 screens from the homepage to start flow. Despite Flowing being a core and frequent function, it takes 3 screens to start it. Additionally, the homepage is rather empty and doesn't offer any information.

Fix: Condense the current homepage and "what will you focus on?" into one to speed up the process

# 44. H7. Flexibility & Efficiency of Use / Severity: 3 / Found By: A

The app does not allow for task prioritization and personalization. The frequent user also does not have an option to view and engage in flow for frequent tasks they engage in.

Fix: Create a 'favorites' to cache frequent flow work sessions so the user does not have to re-create flow sessions for work they perform repeatedly. Allow customization of the tasks they would like to pin.

## 45. H8. Aesthetic & Minimalist Design / Severity: 4 / Found By: C

The background's color scheme is distracting and not conducive to "flow state'. 3 saturated colors at once and in the form of a gradient is rather overwhelming and straining. The color scheme doesn't align with the idea of "flow state" since the aim is to focus and eliminate distractions.

Fix: Maybe try something simpler and more structured than a gradient, such as a solid background. Pick just two of the colors or try pastels and white.

#### 46. H8. Aesthetic & Minimalist Design / Severity: 3 / Found By: B, C

The white text is hard to read against the gradient. This issue occurs many times throughout the app — including onboarding, the labels on the graphs, the timeline headers, and the you are done page.

Fix: Either superbold the white text, make all the text larger, or considering changing the background to a solid color, which would open more options to the kind of text you could place on top

## 47. H8. Aesthetic & Minimalist Design / Severity: 3 / Found By: B

On the "you're done!" page after a user has finished flowing, it's hard to tell what numbers were selected for the purpose and productivity scales. The numbers are very slightly bolded but due to the saturation of the background, it's a little difficult to ascertain the nuances between the slight bold and the normal text.

Fix: Add a circle around the number or change the color of the selected number to highlight that this was the user's selection for the purpose and productivity scales

## 48. H8. Aesthetic & Minimalist Design / Severity: 3 / Found By: C

Add more time and keep flowing" is the most obvious element on the screen, when the first read should be "you are done". It is more likely that the user clicked stop on purpose than by accident. By this reasoning, the "Finish" action or "you are done" should be highlighted more than going back.

Fix: De-emphasize the "add more time and keep flowing" by taking it out of the button or making it relatively smaller.

## 49. H8. Aesthetic & Minimalist Design / Severity: 1 / Found By: C

Color scheme of the graph lines is hard to distinguish from the background. This puts unnecessary eye strain on the user, and makes the lines disappear/blend in instead of standing out as the most interesting info on the page.

Fix: Change the background to something simpler (like white) or change the line colors to something that pops from the rest of the page.

## 50. H8. Aesthetic & Minimalist Design / Severity: 3 / Found By: C

Menu is constantly changing colors and is so hard to read. This is especially true on the timeline and goals page and the journal page when scrolled down. It puts unnecessary eye strain and extra load for the user to try to read what is barely readable. On the stats page, the home icon lies on top of the purple legend, which makes it seem highlighted and is very confusing.

Fix: Make the Menu solid instead of transparent, especially since it's against a changing gradient background.

# 51. H8. Aesthetic and Minimalist Design / Severity: 1 / Found By: B

There are a couple minor grid misalignments. On the flow screen, the pause and stop buttons are off center. On the "Begin Flow" screen, the title is slightly too far to the left. This causes these screens to have some components slightly off-center, which is less aesthetically pleasing.

Fix the grid misalignments on these two screens.

## 52. H8. Aesthetic and Minimalist Design / Severity: 1 / Found By: B

When creating a new goal, it is not obvious where to enter the goal name. The "Creating a New Goal" screen has "untitled goal" as the title but due to the location on the page, it's unclear whether we should try to edit the title there or whether that is the name of the screen.

Fix: Create a new type-in button above the number of minutes a week where the user can enter the goal name.

## 53. H8. Aesthetic and Minimalist Design / Severity: 2 / Found By: B

The four onboarding screens have a lot of text per page and the text is relatively tight and condensed. This makes it a little difficult to read and is a lot of information to be presented in just one screen.

Fix: Condense the information even further or break the information down into an additional 1-2 screens.

# 54. H8 Aesthetic & Minimalist Design / Severity: 2 / Found By: A

The interfaces do not have enough design elements, such as icons and pictures. The screens only contain an ample of text which can be made more engaging with the incorporation of images.

Fix: Replace words with icons where possible. For example, have icons representing different flow categories or replace the 'Finish' button with a check mark or arrow icons.

## 55. H8 Aesthetic & Minimalist Design / Severity: 2 / Found By: A

The 'you're done' screen has unnecessary text. The questionnaire is repetitive and can be phrased more succinctly.

Fix: Reduce the amount of text on this screen. For example, the question 'How proud of your work are you? Do you feel energized/satisfied/motivated?' can be reworded by cutting the synonyms that do not add additional value to the question.

## 56. H10 Help & Documentation / Severity: 2 / Found By: A, B, C

There are no FAQ or help sections. Users may have questions about the scientific backing of flowing, how much they should aim to flow every week, or how to see goals they have completed. Having a FAQ or help section would help them answer questions they might have about flow or how to use the app in more detail. Fix: Include a FAQ/help section, perhaps under a settings menu on the home screen or journal screen.

# 57. H10. Help and Documentation / Severity: 2 / Found By: B, C

The onboarding screens contain a lot of relevant information, but the information is not repeated again anywhere in the app. The information learned during onboarding could be helpful if a user wants to be reminded about why flowing is so important and why they should make time to flow frequently. Since Flowspace is an app with some unique terms and definitions, it'd also be helpful for a user to have a brief user guide in case they forget some onboarding information

Fix: Include an information screen that contains the background information on what flow is and why it's so important (repeated from onboarding).

## 3. Summary of Violations

Category	#	#	# Viol.	# Viol.	#	# Viol.
	Viol.	Viol.	(sev 2)	(sev 3)	Viol.	(total)
	(sev	(sev			(sev	
	o)	1)			4)	
H1. Visibility of Status	0	0	2	2	3	7
H2. Match Sys & World	0	1	1	3	2	7
H3. User Control	0	0	1	1	3	5
H4. Consistency & Standards	0	2	6	0	1	9
H5. Error Prevention	0	0	2	1	0	3
H6. Recognition not Recall	0	1	3	2	0	6
H7. Efficiency of Use	0	0	3	4	0	7
H8. Minimalist Design	0	3	3	4	1	11
H9. Help Users with Errors	0	0	0	0	0	0
H10. Help & Documentation	0	0	2	0	0	2
Total Violations by Severity	0	7	23	17	10	57

*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)

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Severity /	Evaluator A	Evaluator B	Evaluator C	
Evaluator				
Sev. 0	0%	0%	0%	
Sev. 1	43%	43%	29%	
Sev. 2	30%	48%	52%	
Sev. 3	29%	53%	47%	
Sev. 4	10%	70%	60%	
Total (sevs. 3 & 4)	27%	60%	52%	
Total	31%	53%	49%	
(all severity levels)				

#### 4. Evaluation Statistics

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

#### 5. Summary Recommendations

Overall, we enjoyed the minimalistic information architecture of Flowspace. At a high level, each of the tasks are streamlined and correlated to the tabs. Although various details can be ambiguous sometimes, it is very clear on each screen what action the user needs to take. I like that there is enough freedom of options the user can choose from (eg. viewing stats, timeline, goals), but not so much that it's overwhelming. You did fantastic work with Error Prevention and User Control & Freedom. Additionally, unrelated to the heuristic evaluations — Flowspace did a consistently good job of striking an inviting and encouraging tone with both text and design. Many of the screens' layouts have a dynamic feel that nicely aligns with the idea of flow. We also loved the idea of different distraction settings and hope to see the Google Calendar integrations you talked about during studio.

Some common trends that can use improvement include the areas of H4: Consistency and Standards, H8: Aesthetic and Minimalist Design, and H1: Visibility of System Status. Please see above notes for a more detailed explanation and potential recommendations for their fixes. In brief, a more keen attention to detail will take the app a long way, such as with regards to the terminology and streamlining the experience on the app. Currently, the app attempts to explain what flow is and what the app does, but does not highlight important features and how to use them. (e.g blocking, distraction settings). This can be done with

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more clear, concise instructions and/or a few additional screens to walk users through the main functionalities of the app, such as how to engage in a flow session, set a goal, and review the journal. Additionally, consistency and standardization of interface design components such as font, text, spatial orientation would greatly improve the usability and intuitiveness of the app. The color scheme and gradient were lovely to look at but ultimately, feels overwhelming and distracting, and rendered the text unreadable sometimes. It doesn't quite align with the minimalistic, distraction-avoiding theme of flow, and took away from what a user sets out to do with the app — which was zone out diversions and focus.

For Tasks 1 and 2, H1 is where the most pain points occurred. For Task 1 (flow and reflect) especially, a lot of pages led back to the initial screen, without an indication that a flow just occurred. For Task 2 (journaling), the progress made each day wasn't clear and including numerics of number of flow sessions or number of minutes is less powerful without the context of what your goals were. Another critical note is that the app currently does not emphasize the reflection aspect. The framework of the reflection log feels more like an arbitrary survey/questionnaire than a journal entry. We recommend that you make this post-flow reflection more personalizable--instead of asking very rigid questions for users to answer. Maybe including just a free-form text box where the user could add a note about their thoughts and feelings would be preferred. Some kind of AI/sentiment analysis could then be used to infer a rating on your scale instead of directly asking the user for a rating.

Great work on the medium-fidelity prototype! Overall, we had a strong general impression scrolling through and interacting with Flowspace in terms of general usability and intuitiveness. We hope that the feedback will help as you iterate and we look forward to the final product!

## 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

#### CS 147 Winter 2021 website

https://hci.stanford.edu/courses/cs147/2021/wi/index.html

#### 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

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- 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