

Heuristic Evaluation of [ThoughtBubble]

1. Problem

ThoughtBubble is an application that enables people to pose meaningful, often difficult-to-broach, questions to others anonymously, answer questions of their own, and reflect on what they learn through asking and answering.

2. Violations Found

1. H10: Help and Documentation / Severity 3 / Found by: B

- a. The meaning of the emojis on the Discover page are unclear. As a user, I'm not sure if these refer to the tone of the answer or the question or something else. Considering that the discover page is the default page the app opens to, I can see first-time users being confused on how they're supposed to interpret these icons. Ideally, these icons would be self-explanatory.
- b. Fix: If the emojis are really important to the Discover page, then add a tooltip or some first-time user tutorial explaining what they indicate. Else, remove them and maybe replace them with the profile pictures of the people answering the questions. Or just have the questions. Or maybe consider that the emphasis on the discover page is on the questions and not who's asking it, so you could make the emoji/profile pic size smaller and the text for the questions larger

2. H7: Flexibility and efficiency of use / Severity 1 / Found by: B

- a. On the Discover page, the questions' text size is small compared to the emojis next to them. My attention is drawn to the emojis rather than the questions. This could make scrolling through questions not as efficient as it could be otherwise (that is, if attention was drawn to the questions rather than the emojis)
- b. Fix: Make the question color black instead of the current gray and make the size of the text bigger relative to the other elements on this page.

3. H4: Consistency and standards / Severity 4 / Found by: A, B, C

- a. On the user's profile page, there are boards at the bottom connected by lines, creating valleys and peaks, and it looks like a line graph. Usually, this would imply some hierarchy among the nodes or imply that they are being measured on some scale, but this isn't the case
- b. Fix: Don't connect the boards with lines unless the connection is meaningful. Perhaps orient the boards on the same vertical level so that a hierarchy isn't implied

4. H3: User Control and Freedom / Severity 2 / Found by: B

- a. On the bottom of the user's profile page, there doesn't appear to be a title for the boards. It's unclear what these boards mean and where they will take me if I click on them (are these my reflections that I've created on various topics?)
- b. Fix: Add a clear title for this section, such as "My Reflections"

5. H4: Consistency and standards / Severity 2 / Found by: B, C

- a. On the user's profile page, the different View options (e.g., View your answers) don't appear to be buttons to me. At first glance, because of the lines separating each option and because the font is shared by the profile information, they appear to be just more profile information
- b. Fix: Remove the lines that stretch across the screen. Make the options appear distinct from the profile information by displaying them as buttons or hyperlinks.

6. H4: Consistency and standards / Severity 1 / Found by: B

- a. The gray on white text throughout is a little difficult to read. Also, it's not consistent with the gray on the Answered page which indicates a tab that is not currently selected
- b. Fix: Make text, especially navigation links, black or some darker color so there is more contrast with the white background

7. H4: Consistency and standards / Severity 1 / Found by: B

- a. On the "answer" tab, I am able to view both my answered and unanswered questions. However, on the "ask" tab, I can ask questions but I cannot view questions that I have already asked. It seems the only way to navigate to my questions is through my profile page.
- b. Fix: Be consistent with the user navigation options by providing a link to "My questions" from the "ask" page.

8. H4: Consistency and standards / Severity 1 / Found by: B

- a. On the Ask page, the search bar has a magnifying glass and says "Filter." However, the Discover page has an identical search bar that says "Search."
- b. Fix: Make these consistent. Choose either "Search" or "Filter" and use the same word for both search bars

9. H3: User control and freedom / Severity 2 / Found by: B

- a. When I was browsing the Discover page, I found an interesting answer and wanted to ask that person more questions, but there's no navigation option directly from the Discover page to do that.
- b. Fix: Add a navigation option so that a user can directly navigate to asking a particular user a question after the user has viewed a particular question / answer pair from the Discover page. Perhaps you could replace the emoji with a profile picture of the person answering the question, and add a link underneath it that says "Ask [insert name] a question!"

10. H8: Aesthetic and minimalist design / Severity 1 / Found by: A, B

- a. On the "Unanswered" section of the "Answer" page, the questions are listed along with profile pictures. But if question asking is anonymous, why do we need several icons that depict anonymity? It seems like a waste of screen space. Same thing for when answering a question.
- b. Fix: remove the icons and just display more of each question

11. H4: Consistency and standards / Severity 3 / Found by: A, B, C

- a. On the Ask page, the Help button is in the lower left. It has identical formatting and placement to the Cancel button on the answering a question page. A user may accidentally hit the help button when they intend to cancel or vice versa
- b. Fix: Move the help button to the top and add a different icon for it (perhaps a question mark). Make it distinct from the Cancel button in both formatting and placement.

12. H4: Consistency and standards / Severity 2 / Found by: B

- a. When answering a question, there are pencil icons next to “Your revised question” and “Your answer.” (Are these clickable and what do they do if I click on them?). However, when asking a question, there is no pencil icon next to the textbox. Furthermore, there **is** a pencil icon next to my profile picture, which I assume is clickable and will allow me to edit my profile. These inconsistencies are confusing.
- b. Fix: Choose one function for the pencil icon (e.g., edit nearby stuff or bring up a toolbox of editing tools like strikethrough) and stick to that one function. Only use that pencil icon in places where it indicates that one function.

13. H3: User control and freedom / Severity 3 / Found by: B

- a. When revising questions, how do I easily access text format options like strikethrough? It seems like strikethrough would be important for revising
- b. Fix: provide a strikethrough option next to “Your Revised Question”. So a user can highlight text and press a strikethrough button.

14. H10: Help and Documentation / Severity 2 / Found by: A, B

- a. When revising questions, I didn’t realize that a comment feature would pop up allowing me to comment on a particular part of a question. In other words, I didn’t know I could comment on particular parts of a question.
- b. Fix: Add a tooltip or some text next to “Your Revised Question” that lets users know this is a feature they can use.

15. [H5. Error prevention] / Severity 2 / Found by: A, B

- a. Particularly to a new user, the kinds of queries that are valid to enter into the search bar on the Discover page is somewhat vague. Can user search questions, users, broader topics...?
- b. Fix: Perhaps add some grey filler text in the search bar that displays examples of what types of terms users can search and filter until the user begins typing their own query.

16. [H4. Consistency and standards] / Severity 2 / Found by: A

- a. On the profile page, it is unclear whether ‘Your Questions’ refers to questions that the user has been asked or questions that they have posed to others.
- b. Fix: A simple labeling change might do the trick—maybe rewording the label as “Questions Asked” or “Questions Received.”

17. [H10. Help and documentation] / Severity 3 / Found by: A, B

- a. It may be unclear or unintuitive to new users what the motivation behind revising questions is and performing such specific tasks like highlighting and commenting on specific parts of the revisions.

- b. Fix: When a user first starts using the app, explain the purpose behind question revisions and explain the different components—writing the revised question, highlighting and commenting on specific text.

18. [H1. Visibility of system status] / Severity 1 / Found by: A

- a. After revising and answering a question, there is a popup feedback message that reads 'Feedback Sent.' However, the main focus and task at hand is answering a question, not revising a question (although it can be part of it). 'Feedback Sent' seems to rather imply that the main goal the user accomplished was providing feedback on a posed question when, in reality, they have also answered that very question as well.
- b. Fix: Alter the text label in the feedback to read something along the lines of 'Question Sent' or 'Question Answered.'

19. [H3. User control and freedom] / Severity 2 / Found by: A

- a. Users may sometimes want the option of being able to modify or delete questions they have asked, answered, or saved to a board. Perhaps ThoughtBubble might not want to include all of those options in the spirit of transparency, but, at the very least, people usually have some expectation that the data they upload can be changed or even removed.
- b. Fix: Give users flexibility to change or delete their questions/answers. Or, establish a common understanding when onboarding users that there is some information that cannot be modified once posted.

20. [H4. Consistency and standards] / Severity 1 / Found by: A

- a. On the 'Discover' page, there are profile photos on the left of each question preview that represent the user who answered the question. On the other hand, on the 'Answer' page, the faces adjacent to the questions seem to represent the anonymous askers, which is inconsistent with the 'Discover' page questions.
- b. Fix: Keep it consistent by displaying either the asker or answerer profile photo in all question previews (or remove altogether?).

21. [H2. Match between system and the real world] / Severity 3 / Found by: A, C

- a. When navigating the app to ask a question, it is unclear where the list of other users to which questions can be sent comes from. Is it a listing of all users on the app or just a smaller subset? Does a user have to 'friend' or add another user and be accepted by them before they can ask them questions? Where in the task flow does finding other users to ask questions to or accept questions from fit in?
- b. Fix: If users do specifically need to connect with others before they can interact, the process of finding these connections could perhaps be integrated into the 'Discover' page and its search feature.

22. [H5. Error prevention] / Severity 3 / Found by: A

- a. When users answer a question they have received, it might not be entirely uncommon that they make some typos or simply have some wording that they later decide could be clarified, especially with possible three different text fields to fill in. The interface currently submits the question revisions and response directly without any further confirmation once 'Send' is tapped.

- b. Fix: Provide the user with an opportunity to review/revise their responses after they tap 'Send' before their input is officially submitted.

23. [H7. Flexibility and efficiency of use] / Severity 2 / Found by: A

- a. Users, particular frequent or long-time ones, may be interested in being able to quickly view if they have new, unread answers to questions they asked.
Currently, there is no way to see that status when the users open up the app.
- b. Fix: Display a small number or icon, perhaps in the upper toolbar, that displays when users have responses to their questions have been posted.

24. [H4 Consistency & Standards] / Severity 2 / Found by: C

- a. In the user profile page, "Your Collection" has a following parenthesis showing "Private", but "View your Questions" has no such "private" parenthesis. This app let user to ask anonymous questions, so without 'private' in 'view your questions' column may cause confusion.
- b. Fix: Add (Private) to 'View your Questions'

25. [H4] Consistency & Standards / Severity 3 / Found by: C

- a. In the Discover page, after user clicks the question "As a white cis male...", the user is directed to a page requiring user to enter his/her thoughts. But on that page, I think it's better to highlight "Discover" in the navigation bar, to inform user he/she is originally being directed from Discover page knowing that the question is from Discover page.
- b. Fix: Highlight "Discover" in the navigation bar.

26. [H1] Visibility of system status / Severity 3 / Found by: A, C

- a. In the Discover page, after user writes down his/her thoughts, the user can choose to save it to board, under 'Allyship'. However, there are no final confirmation feedback except for a border of 'allyship' appears.
- b. Fix: Add a pop up window asking user to confirm saving his/her thought to a given bubble.

27. [H3] User control and freedom / Severity 2 / Found: C

- a. In the 'Answer' page, after users select a question in 'unanswered' section, the user has to revise the question in 'your revised question' section or put down the original question, I guess, to not revise anything. Oftentimes the user might don't think revise a question is necessary.
- b. Fix: Provide a button, or a checkbox to show allowing users to click if they think the original question posted is good enough to them.

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	0	1	0	2
H2: Match Sys & World	0	0	0	1	0	1
H3: User Control	0	0	4	1	0	5
H4: Consistency	0	4	4	2	1	11
H5: Error Prevention	0	0	1	1	0	2
H6: Recognition not Recall	0	0	0	0	0	0
H7: Efficiency of Use	0	1	1	0	0	2
H8: Minimalist Design	0	1	0	0	0	1
H9: Help Users with Errors	0	0	0	0	0	0
H10: Documentation	0	0	1	2	0	3
Total Violations by Severity	0	7	11	8	1	27
Note: check your answer for the green box by making sure the sum of the last column is equal to the sum of the last row (not including the green box)						

4. Evaluation Statistics

Severity / Evaluator	Evaluator A	Evaluator B	Evaluator C
sev. 0	0	0	0
sev. 1	43%	71%	0
sev. 2	45%	55%	27%
sev. 3	63%	50%	50%
sev. 4	100%	100%	100%
total (sev. 3 & 4)	67%	56%	56%
total (all severity levels)	52%	59%	30%

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

5. Summary Recommendations

In general, your prototype felt easy and clear to use. ThoughtBubble's design is already fairly minimalistic and aesthetically-pleasing with a consistent color palette. The general consistency of the visual design across all the screens is great. It might be useful to explore using more white space, particularly on screens with a lot of text displayed.

The things that mainly stood out were some small issues with formatting and the meaning of the emojis/anonymous profile pics. We'd also suggest making the text larger, especially for the tabs at the top of the screen. Perhaps the tabs' white on bright green color contrast also affects the readability here, so toning down the brightness of the green may help.

We also wonder if a user would want to see all the questions that another user has answered before asking a question, in order to avoid creating duplicate questions to the same user on the platform. In the flow of things, we would want to do this after we've selected someone (say, Hermione) to pose a question to, but before we start composing. But we also likely wouldn't want to leave the screen that we're on. Maybe you could add an option for a popup window that has all the questions a certain user has answered.

In summary, the issues to focus on seem to be consistency (placement, icons, meaning behind icons), standards (making things more readable and legible), and giving the user more navigation/information options so they don't have to abandon their flow. Overall, pleasing app design with clear tasks and just some small things to iron out!

Severity Ratings

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

Heuristics

H1: Visibility of System Status

- Keep users informed about what is going on

H2: Match Between System & Real World

- Speak the users' language
- Follow real world conventions

H3: User Control & Freedom

- "Exits" for mistaken choices, undo, redo
- Don't force down fixed paths

H4: Consistency & Standards

H5: Error Prevention

H6: Recognition Rather Than Recall

- Make objects, actions, options, & directions visible or easily retrievable

H7: Flexibility & Efficiency of Use

- Accelerators for experts (e.g., gestures, kb shortcuts)
- Allow users to tailor frequent actions (e.g., macros)

H8: Aesthetic & Minimalist Design

- No irrelevant information in dialogues

H9: Help Users Recognize, Diagnose, & Recover from Errors

- Error messages in plain language
- Precisely indicate the problem
- Constructively suggest a solution

H10: Help & Documentation

- Easy to search
- Focused on the user's task
- List concrete steps to carry out
- Not too large