Heuristic Evaluation of TutorNOW

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1. Problem

The TutorNOW application provides an on-demand mechanism for students on college campuses to connect for the purposes of offering and receiving tutoring.

2. Violations Found

1. **[H2-1. Visibility of system status] [Severity 1] [Found by: D, B]**
   On the screens for a tutee to find a tutor, it does not indicate where in the flow the user is. One solution would be to add a title at the top with text such as "Submit Tutor Request" or "What kind of tutoring do you need today?"

2. **[H2-8. Aesthetic and minimalist design] [Severity 1] [Found by: D]**
   On the screen to fill out help that a tutee is requesting, a profile photo and name are listed at the very top as the first item. This is the user's own profile, so it is not necessary to view this as he/she is filling out the information. This is a superfluous item that could be removed to reduce distractions.

3. **[H2-3. User control and freedom] [Severity 3] [Found by: D, C, B, E]**
   On the screen where the user views a list of tutoring offers, the main button is to "Cancel Request." However, this takes the user all the way back to the home screen. In case the user just wants to go back one screen and edit something about the request, there is no way to do that; they will need to fill out the entire request again. There should be an option to just go back one step and edit the request.

4. **[H2-6. Recognition rather than recall] [Severity 2] [Found by: D, B]**
   If the user sees a list of offers and clicks on the tutor's profile, he/she is taken to the profile page. At the bottom, there is a button to "Accept [tutor's] offer" for the particular tutoring job. However, the price information for this particular job is not listed, meaning the user has to either remember how much the offer was, or click back to see it, thereby reducing the functionality of having a shortcut to accept directly on the profile page. One solution would be to list the price for this particular tutoring job next to the accept button or make it part of the button text, e.g. "Accept Josephine's offer for $30!"

5. **[H2-8. Aesthetic and minimalist design] [Severity 2] [Found by: D, A]**
   The tutor profile page lists Market Rates for different classes. This might be useful if a tutee is just browsing through different tutors and wants to submit a request for a particular tutor; however I encountered this information while clicking through to a tutor's profile after receiving a specific quote from them. The information seems unnecessary to the current task that I am trying to complete, so it could be removed in this instance.

6. **[H2-4. Consistency and standards] [Severity 2] [Found by: C, D]**

On the screen with a list of tutoring quotes, the largest button is "Cancel Request" which is shown in large text at the bottom of the screen. My eye is immediately drawn to this, and on the previous page this is where user flow buttons like "Back" and "Continue" are listed. In order to move forward from this screen, I have to hunt for the "Accept Offer" button, which is much smaller than the "Cancel Request." One suggestion would be to make the cancel button smaller so that it does not compete with the accept button, or take up the prime real estate on this page (since presumably it's not the primary action you are hoping users to take).

7. **[H2-1. Visibility of system status] [Severity 3] [Found by: C, D, E, B, A]**
Once I accept the offer, I am taken to a confirmation page for the tutoring job. However, if I click "Cancel" from this page, I am taken all the way back to the home screen. There is no confirmation that my tutoring job has been canceled, and I am not sure what the status of the tutoring job is, or where to check that. One suggestion would be to add a confirmation screen that indicates the tutoring job has been canceled, and perhaps a suggestion for what to do next (book another job?) It also seems a bit strange that there would be an option to cancel immediately after I booked a job; it seems likely that I might want to edit the job or maybe pressed "book" by accident, but completely canceling a job I just booked seems like an unlikely scenario.

8. **[H2-1. Consistency and standards] [Severity 2] [Found by: C, E, D, B]**
On the confirmation page, it isn't clear what "Start" means. Since the two options at the bottom were "Cancel" and "Start," I assumed that I was supposed to click Start as soon as I had confirmed the job. I didn't realize that "Start" meant that the tutoring session is about to start, and once I clicked it, there wasn't a way to click back. One suggestion would be to remove the Start button completely from the tutee flow, and have the tutor be the one to indicate when a session is starting. In other contexts, usually it is the service provider who indicates when a session is starting, since they are the one charging (Uber drivers, therapists, etc).

9. **[H2-3. User control and freedom] [Severity 4] [Found by: C, E, D, B]**
If the user accidentally clicks the "Start" button when they didn't mean to, there should be a quick "Back" button. Otherwise, they will be charged for the tutoring session when they didn't mean to. Currently, the only option on this page is "Tutoring Complete," which does not give the user much control.

10. **[H2-3. User control and freedom] [Severity 3] [Found by: C, D, B]**
When the user clicks "Tutoring Complete," the next screen shows that $25 has automatically been charged to his/her Venmo account. In situations where I am paying money, I would feel more comfortable if I had a chance to review first. Even though I am going to pay anyway, it gives a sense of control if I actively say yes, rather than having money automatically charged to my account (e.g. reviewing a bill in a restaurant before putting down your credit card, order confirmation pages for online shopping). Some applications such as Uber automatically charge to your account, but I would argue that the situation of taking a taxi is much more time constrained because you are usually hopping in and out in a rush. One suggestion would be to add a quick confirmation screen that says something like "Tutoring session completed! Confirm payment?" This would also prevent errors where the user accidentally presses a button and ends the tutoring session early.

11. **[H2-5. Error prevention] [Severity 3] [Found by: C, D, B]**

What happens if a user fills out a tutoring request, completes the session, but doesn't have a Venmo account set up? Do they set this up at that point within the flow? Or are they prevented from filling out any tutoring requests until they link their Venmo account from the Payments flow? One suggestion would be to disable the "Be Tutored" button until Payments has been filled out.

12. **[H2-3. User control and freedom] [Severity 2] [Found by: C, D, E]**
After paying with Venmo, the only way forward from the payment screen is to "Review your experience with Josephine!" There is no way to go back directly to the home screen. Some applications such as Postmates or Uber also require you to rate your service before being able to book another service; however this takes control away from the user. There may be a business reason to limit the control of the user in this scenario; however there are also tradeoffs, especially since the review screen in this case is longer than typical. One suggestion would be to cut down on the amount of information required for the review.

13. **[H2-4. Match between system and the real world] [Severity 1] [Found by: C, D]**
The terminology on the home screen is a little confusing. The home screen is very simple, so it was easy to find what I wanted, and it was also clear from reading the write up what the flow was supposed to be. However, it might be a little more intuitive to name the buttons something like "Sign up to tutor" and "Find a tutor"/ "Hire a tutor" as those are closer to terminology that is commonly used in real life.

14. **[H2-8 Aesthetic and minimalist design] [Severity 2] [Found by: E]**
In a tutor's profile screen, the "skills and endorsements" section includes information of questionable relevance and ambiguity. For example, it is not immediately clear to a tutee what it means to have 5 people endorsing Josephine for "Social Media" (5 people out of how many?). This section confuses users, should be presented more clearly, and moved downward, making room for more relevant contents.

15. **[H2-8 Aesthetic and minimalist design] [Severity 3] [Found by: E]**
The "star" rating can be a misleading measure of tutor's quality. While Josephine could be a rockstar biology tutor and is highly rated, she could also be a poor psychology tutor at the same time. However, this fact is obscured by her high rating from tutoring biology. This would render the combined star rating unhelpful. Consider adding a breakdown of ratings by class/subject, as well as adding the number of raters in a bracket following the stars. Many tutee would want to see this information first in order to identify high quality tutor effectively, so it should be moved to be visible without further scrolling as well.

16. **[H2-2 Match Between System and the Real World] [Severity 1] [Found by: C]**
On first use, I have no idea what to put into the "I need help with: " space. Isn't that what the assignment description is for? It should specify that it wants the particular class, not "a problem set" or "biology", which could logically go in that space as it is currently. This violates H2-2 because the real world is usually more explicit.

17. **[H2-1 Visibility of System Status] [Severity 2] [Found by: C]**
There's no context for the user regarding the differences in pricing. Why do some tutors charge more than others? Why does the same tutor charge more for some subjects than others? It would be useful to see some explanation on the tutor profile regarding how prices are set. This violates H2-1 because it obscures pricing standards/calculations inherent in the system, leaving users to wonder what exactly is going on.

18. **[H2-3 User Control and Freedom] [Severity 1] [Found by: C]**
It is not clear whether the user is selecting the room to meet in or if that's connected to the tutor or the subject. Should these all be options? If not, it should be very clear why the one or two that are offered are provided and not the other(s), and it should be very clear to the user why a specific location is chosen. This violates H2-3 because it takes control out of the hands out the user and is unclear.

19. **[H2-1 Visibility of System Status] [Severity 2] [Found by: C]**
The app prevents users from seeing what tutoring options are available until they have entered information about the class they need to be tutored in. If I'm a new user, I probably want to see what subjects have active tutors, just out of curiosity; similarly, if I've had a positive experience with some tutor in, say, CS, and now I'm taking physics, I may want to see if that same tutor can help me again rather than looking at all the tutors. It would be nice if there were a way to navigate straight to a list of available tutors for all subjects, or filtered by a subject more generally. This violates H2-1 because it does not make it clear how many options there are or how varied these options are, thus limiting a prospective tutee's understanding of the system.

20. **[H2-7 Flexibility and efficiency of use] [Severity 2] [Found by: E, B]**
The tutor request screen lacks an option to load from a previously-filled information. A tutee is likely to request multiple sessions with a tutor for the same class. Add a button to select the class from historical data will save time for repeated users.

21. **[H2-5 Error prevention] [Severity 4] [Found by: E, B]**
The "confirmed" screen, after accepting an offer from the tutor, lacks an option to contact the tutor. The need to contact the tutor may arise in many cases, e.g. a tutee is kicked out of a room in Old Union and now need to change her location

22. **[H2-8 Aesthetic and minimalist design] [Severity 2] [Found by: E]**
The "review tutor" screen, after the tutoring session is completed, shows several "skills" of the tutor to endorse. These skills are irrelevant (C++, Java and Ruby on Rails have nothing to do with Biology) and not meaningful. There is also no way to endorse a new skill. Consider modifying the endorsement system to perhaps the rating system of each skill instead.

23. **[H2-8 Aesthetic and minimalist design] [Severity 3] [Found by: E]**
In the home screen, it is unclear why the "Payment" button is on it. Most people would set up the payment (Venmo link) only once. As a result, making the payment button as large and visible as the other two key functions (Tutor and Be tutored) doesn't make much sense. The payment setting should be hidden in a setting function somewhere.

24. **[H2-4 Consistency and standards] [Severity 1] [Found by: E]**
In the tutor profile screen, the word "market rates" is used instead of rates. This is different from the tutor list screen and may confuse some users whether there is any difference between "market rates" and "rates." The word "market rates" implies that the price is set by the market and is continuously changing. These terms should be clarified if there are any differences. If there is none, the term should be the same.

25. **[H2-5 Error prevention] [Severity 4] [Found by: E]**
The "tutoring in progress" screen doesn't have a pause button. This could cause several problems because the charge is directly calculated based on the length of the tutoring. If the

start button is tapped by mistake or if the tutor needs to take a break (emergency phone call, etc.), the charge could be inaccurate, causing disagreements between the users. A pause button should be added to prevent the aforementioned issues.

26. **[H2-7 Flexibility and efficiency of use] [Severity 3] [Found by: B]**
The interface allows the user to choose whether he would like to be tutored "now" or between a range of time. Even though there is a clear goal of immediacy in this task, many college students have tight schedules and deadlines, which means they are able to predict when the will need and have time for tutoring. Consequently, users might want to be able to schedule tutoring ahead, to make sure they will be helped. However, the interface only supports same-day tutoring. Add a "set date and time" to the second screen.

27. **[H2-1 Visibility of system status] [Severity 2] [Found by: B]**
The interface requires me to go through several pages in order to get a tutor: defining subject and location, then choosing my tutor (which possibly involves checking their profile), and then a confirmation page. It would be helpful to now where in the tutoring request process I am at any given point. Add a progress bar on top, which highlights which section I am and what other section are to come.

28. **[H2-4 Consistency and standards] [Severity 2] [Found by: B]**
On the confirmation page, I need to click the "Start" button to signalize the start of my tutoring session. However, this action could be confusing to the user, since he might interpret as a way to confirm that he wants the tutor to come. Moreover, this should likely not be a responsibility of the tutee, given that the session only starts when the tutor arrives there, and given that the tutee already had to go through several pages in order to get a tutor. Instead, much like Uber, have a page saying "Tutor on his/her way", and have the tutor be the one responsible for signaling the start of a session. When he does so, the tutees phone would go to the "Tutoring in progress" page.

29. **[H2-4 Consistency and standards] [Severity 4] [Found by: B]**
On both the tutoring details and tutoring confirmation page, we see a map, related to the location where the tutoring session would happen. However, there are no pins on the map specifying the exact location, which makes the map not very useful. Add pin to location specified.

30. **[H2-7 Flexibility and efficiency of use] [Severity 3] [Found by: B, A]**
On the tutor profile page, the user needs to scroll down through all the information in order to reach the "back" and "accept offer" buttons, which might be inefficient, particularly when a tutor has multiple reviews. Have the same buttons on the top of the screen, or have a sticky tab on the bottom with those buttons.

31. **[H2-2 Match between system and the real world] [Severity 1] [Found by: B]**
On the tutor profile page, the user sees previous reviews of the tutor. However, people tend to care not only what people had to say, but also who said it. Moreover, particularly in a college campus, one can expect the a lot of the people using the app and reviewing tutors would know each other. Thus, TutorNOW is not taking advantage of the possible more intimate experience it could provide. To do so, add the name of the author of each review, or make it possible for people to choose whether the review tutors anonymously or not.

32. **[H2-2 Match between system and the real world] [Severity 2] [Found by: B]**

On the tutor profile page, the user sees myriad information on the tutor. However, since the tutor is a student, one of the most important information the user might be interesting in seeing is academic performance. What's this tutor's GPA? What grade did she get on the class I need help with? This would also be very useful for new tutors to get traction even though they don't have any reviews yet. Add GPA and grade on each class to tutors' profile pages.

33. **[H2-2 Match between system and the real world] [Severity 2] [Found by: B]**
I can only browse tutors' profiles when I'm about to ask for help. However, it would be nice to be able to explore different tutors without wanting help, since I could explore the different classes they are taking, different rates, etc. Add "explore tutors" button.

34. **[H2-4 Consistency and standards] [Severity 1] [Found by: A]**
The color scheme of the application seems to be a few grays and some red. Throughout the application, bright purple and bright orange are also present, not matching or consistent with the rest of the color scheme. Replace purple and orange with colors that fit better into the color scheme.

35. **[H2-7 Flexibility and efficiency of use] [Severity 2] [Found by: A]**
In the page where the tutee enters information in order to request a tutor, the first two lines, i.e. subject and time are much more important than the description. However, the description box is much bigger and salient. Make the first two lines larger and description box smaller so that the tutee can see which information is more crucial.

36. **[H2-5 Error prevention] [Severity 3] [Found by: A]**
The user could easily pinpoint the wrong location by tapping the map because exact locations are difficult to find in such a small map. Add a search option for locations so the user can easily find them without looking through the map.

37. **[H2-7 Flexibility and efficiency of use] [Severity 3] [Found by: A]**
As far as I understand this app, it seems to only show tutors that match the time and location exactly. Chances are, tutors will not always be available in that manner. If there aren't enough tutors that meet the exact criteria, also include similar times and nearby locations.

38. **[H2-2 Match between system and the real world] [Severity 2][Found by: A]**
"Accept offer" does not seem to be an intuitive phrase when it comes to tutoring. It reminds me of job offers and it seems too formal to use in this kind of casual, peer-to-peer application. Find a more casual and intuitive way to phrase this action.

39. **[H2-8 Aesthetic and minimalist design] [Severity 1] [Found by: A]**
In the end, once the person has been tutored, he or she is shown the option to review the tutor. The text in this button is quite lengthy and could be shortened from "Review your experience with Josephine" to "Review Josephine" or "Review Tutor." This would make the button more aesthetically pleasing and the button clearer.

40. **[H2-8 Aesthetic and minimalist design] [Severity 2] [Found by: A]**
The page that has the tutor review form includes the tutor's school, major, and other information that is not necessary for a tutee that has already received tutoring services. Remove this information for a better usage of space.

41. **[H2-8 Aesthetic and minimalist design] [Severity 3] [Found by: A]**

The chunk of text on the payment screen is way too long for anyone to read, especially because the buttons are already quite self-explanatory. Put this information in a separate screen that's only seen if someone clicks on a "Help" type of button.

3. Summary of Violations

Category	# Viol (sev 0)	# Viol (sev 1)	# Viol (sev 2)	# Viol (sev 3)	# Viol (sev 4)	# Viol (total)
[H2-1: Visibility of status]	0	1	4	1	0	6
[H2-2: Match Sys & World]	0	2	3	0	0	5
[H2-3: User Control]	0	1	1	2	1	5
[H2-4: Consistency]	0	3	2	0	1	6
[H2-5: Error Prevention]	0	0	0	2	2	4
[H2-6: Recognition not recall]	0	0	1	0	0	1
[H2-7: Efficiency of Use]	0	0	2	3	0	5
[H2-8: Minimalist Design]	0	2	4	3	0	9
[H2-9: Help Users with Errors]	0	0	0	0	0	0
[H2-10: Documentation]	0	0	0	0	0	0
Total Violations by Severity	0	9	17	11	4	41

4 Evaluation Statistics

Severity	A	B	C	D	E	# Violations
Level 0	NA	NA	NA	NA	NA	0
Level 1	22%	22%	33%	33%	11%	9
Level 2	24%	41%	29%	29%	29%	17
Level 3	45%	55%	36%	36%	36%	11
Level 4	0%	75%	25%	25%	75%	4
Total (Levels 3 & 4)	33%	60%	33%	33%	47%	15
Total (All Levels)	27%	44%	32%	32%	32%	41

#Evaluator	# Problems Found	# Problems Remaining & Problem IDs
A	11	3 shared with #B, #C, #D, #E → 8 (34, 35, 36, … 41)
B	18	18 (most found)
C	13	6 shared with #B → 7 (6, 12, 13, 16, 17, 18, 19)
D	13	11 shared with #B & #C → 2 (2, 5)
E	13	7 shared with #B, #C, #D → 6 (14, 15, 22, 23, 24, 25)

Value Added Per ID
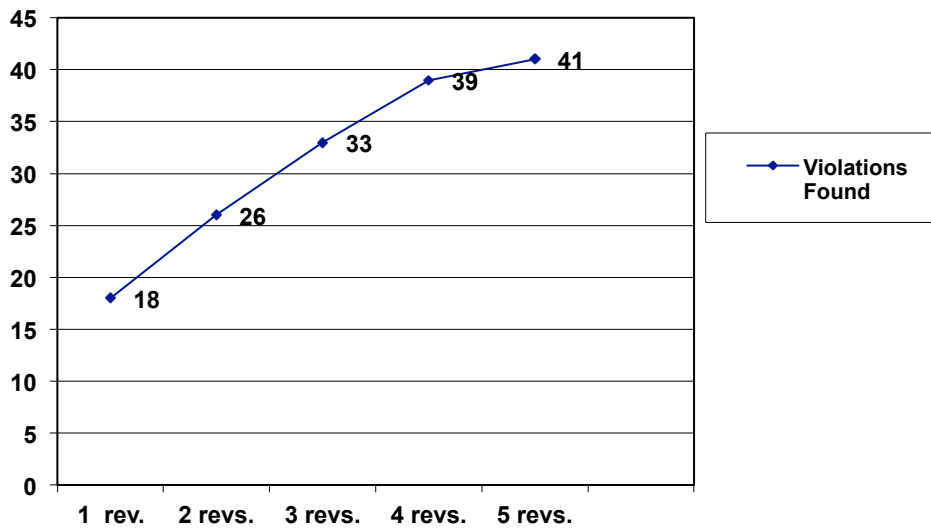
Severity Ratings

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

[H2-1: Visibility of System Status]
- keep users informed about what is going on

[H2-2: Match Between System & Real World]
- speak the users' language
- follow real world conventions

[H2-3: User Control & Freedom]
- "exits" for mistaken choices, undo, redo
- don't force down fixed paths

[H2-4: Consistency & Standards]

[H2-5: Error Prevention]

[H2-6: Recognition Rather Than Recall]
- make objects, actions, options, & directions visible or easily retrievable

[H2-7: Flexibility & Efficiency of Use]
- accelerators for experts (e.g., gestures, kb shortcuts)
- allow users to tailor frequent actions (e.g., macros)

[H2-8: Aesthetic & Minimalist Design]
- no irrelevant information in dialogues

[H2-9: Help Users Recognize, Diagnose, & Recover from Errors]
- error messages in plain language
- precisely indicate the problem
- constructively suggest a solution

[H2-10: Help & Documentation]
- easy to search
- focused on the user's task
- list concrete steps to carry out
- not too large