Graduate Student comments (taken from their heuristic evaluation)

**Patrick:**
“On the login screen, RioMio gives the option to enter a username and password and then click go or skip. This setup does not afford users the ability to register as a new user. If registration is meant to be done on the mobile device, improvements to the affordances, mapping and visibility of this screen for new users are necessary. If registration is only meant to be done on the website—and therefore not on the mobile application—then this layout is fine.”

On the first page after login, the home screen, RioMio is displayed again, followed by Previous Observations and Make an Observation. Previous Observations is a listing of observations while Make an Observation is a button. I believe this is an issue with the consistency principle. It appears that both functions can be clicked. To resolve this, Previous Observations could also be a button, which takes you to another page listing the observations. This would also help with spatial efficiency and visibility principles. In the current layout, a user with many observations could crowd the page and make it difficult and unclear where and how to Make an Observation.

Once the user clicks Make an Observation, they are navigated to a list of questions regarding the water status. According to the group during the Cognitive Walkthrough, these are ‘mostly’ multiple-choice. All questions should be multiple-choice if possible. If the questions are not, here would be problems on this page with spatial and temporal efficiency. If some questions are not multiple-choice, but require text entry, they should be navigated to on separate pages, due to spatial efficiency and aesthetic appeal. Perhaps text entry is needed for the accuracy principle. If so, could an option be available for participants to submit only some of the questions, in regard to temporal efficiency?

In general, a double check feature should be considered before submitting a new observation or editing a previous observation. In compliance with the accuracy principle, it will be important for users to preview what they have done and check for errors. Based on my current understanding of the application, once information is submitted it will be extremely difficult to correct errors that are made. This should be done extremely efficiently, in line with the temporal efficiency principle.

**Abhi:**
The login screen must display an error message when login is attempted incorrectly, or a success message when logged in correctly. Currently, this is not made available in the paper prototype and is a violation of Usability Principle 1: Visibility.

Once successfully logged in, the app must be able to remember the login information for subsequent uses. Current design is a violation of Usability Principle 4: Memory. Having to log in multiple times is also a violation of Usability Principle 5: Minimalism. The app should instead be logged in by default, and provide the users with the option of logged out from the menu button.
on top right. The drop down menu in the first screen has redundant options in a clear violation of Usability Principle 5: Minimalism. There is no reason why a user might want to click on ‘Log-in’ when they are already in the login screen. I suggest replacing the drop down menu with a simple button that leads to ‘Settings’. A separate help button can be added to the bottom of every screen. This helps maintain consistency through the app.

‘Previous Observations’ and ‘Make an Observation’ could just simply be buttons that lead to separate pages (as Dr. Pastel pointed out during the group’s cognitive walkthrough). This would make the view look less cluttered, and as it exists, it is a violation of Usability Principle 5: Minimalism.

‘Cancel this observation’ pop up is a little confusing. Does it mean the observation will be stored for editing later, or completely deleted? The ambiguous language makes this a violation of Usability Principle 2: Familiarity.