**Assessment Test Introduction**

An assent test is a test that is designed to help evaluate the practical usability of a product in order to help uncover specific flaws in the design and to introduce opportunities for improvement. The type of assessment test our team chooses to go forth with is a user assessment test where we judge the efficiency of the product in a simulated environment using people from our target group. Considering our time constraints we believe this type of testing will provide us with potentially the most helpful information within the least amount of time.

We compiled a list of specific questions and issues that we would like to address about our product; this list of questions is as follows:

* Are there any challenges the testers may experience with adding and viewing users on the system?
* How intuitive is the Calendar interface?
  + Is there any confusion on how to navigate through different dates in the calendar?
  + Does it take any extra time to understand how to look at specific day and its related events?
* Do users struggle with chore management tasks such as adding, editing, and removing chores?
* Are there any issues with assigning events and chores to a user?
* Do users experience any difficulty with memory retention related to where they are in the system and what they need to do next to accomplish their task?

**Assessment Test Method(s)**

Assessment tests were conducted in a two room usability laboratory with video and audio recording capabilities. Subjects and test conductors were located in separate rooms from one another while the testing was active. Our tests were conducted using a computer and the iDivvy application along with test manual that had scenario driven tasks users were asked to perform that simulated the main functions of the iDivvy product. We decided on the double person user testing approach of because we believe it allows us to have greater feedback when there is a conversation going on amongst two testers rather than just a single one. Our tests subjects were selected from within our user target domain which includes individuals between the ages of 17-25, enrolled in college, and living with roommates. Test subjects were either friends or acquaintances of people on the development team. All test subjects were given no compensation for their time and were completely on a voluntary basis. Before any tests were conducted all testers were asked to read and agree to our consent form that detailed things like how the information we gather was going to be use, any associated risks, and user confidentiality. All users where told prior to the test that all tests were going to be unassisted and video recorded. Test subjects were also told that the average time to complete the test was approximately 10-15 minutes with maximum time allowance of 50 minutes after 50 minutes the test was going to be stopped. We tested 5 groups of people, male-male, male-female, and female-female pairs. All test pairs completed the test within 15-25 minutes.

**Assessment Test Results**

We began our analysis of the data by reviewing both the test manual each group gave back to us on completion of the test as well as the video that was produced from each test. We were specifically looking for feedback on the questions we originally were trying to answer about how difficult or how easy was it for the user to perform basic tasks such as adding users and locating and displaying important information. We reviewed each video going down our list of questions and deciding whether or not we had an answer to each question. Overall we concluded that our testers had little to no difficulty navigating through the application but uncovered some challenges in performing tasks that we had not foreseen. These challenges are itemized in a list below.

* Results showed that some users had a different mental model about the data displayed for a specific user like chores were not clickable items.
* A group of users thought that the different color icons and gender association with them when adding a user profile to the iDivvy application.
* The navigation bar that we implemented at the bottom of the screen was not as useful as the navigation bar at the top. Testers seem to ignore the navigation bar at the bottom of the interface in favor of the top one.

**Assessment Test Outcomes**

As a result of extreme time constraints we were not able to implement any changes to the prototype in accordance to the feedback we received from our assessment tests however we were able to analyze and envision the changes we would like to have made if time we had more time for this project. Some of the things we would have changed in order to follow our user-centric design approach are listed as follows.

* Move all the UI navigation to the top of each panel because we believe keeping the navigation on the most convent location is not only cosmetically appealing but also helps to mitigate any confusion that might be a result of having two navigation bars on the screen instead of one.
* Our list of user icons would be more extensive with emphasis on more color variety and different artifacts that were gender neutral.
* We would like to change how data and icons are displayed in a way that distinguishes clickable buttons then from just regular information. I accomplish this we would like to have implemented a background color scheme to buttons and when displaying regular data keep the background consistent with the color of the panel’s background.

Results:

Below is a table that describes some basic observations we made from the test videos. Each item describes how common it was seen in the tests and some notes on the task the user was asked to accomplish and what they did instead.

|  |  |  |
| --- | --- | --- |
| Task | Notes | Reoccurrences |
| View Tasks | When users were asked to find the chores scheduled for a specific day, they often ended up on the “Manage Chores” page. | 3/5 tests |
| Some users struggled to find a list of tasks for just themselves. This was located under the “Manage People”, then selecting a person showed their profile and list of chores for just themselves. | 2/5 tests |
| There was confusion when view the dates for certain tasks. Java uses zero based months numbering, and this was confusing to users. | 3/5 tests |
| There was some confusion viewing chores for an entire month, some users clicked on a single day and then scrolled through each day to verify the status of chores. | 2/5 tests |
| View People | Users tried to use a scroll bar to find more people. | 2/5 tests |
| View Chores | Users often tried to view chores for an entire month and ended up looking at the chores list to select from. This is evidence of a discrepancy between the user’s mental model and our design. | 3/5 tests |
| Add Person | The users were able to navigate through this panel just as we expected. However, there was some hesitation when trying to complete the task of adding a person by clicking the “Add” button on the navigation bar. | 2/5 tests |
|  | When only two icons were available for users to use with their name, some users thought the icons were associated with gender. | 1/5 tests |
| Add Task | The dates were off in the add task panel, this caused some confusion for the users because the date select worked properly but the selection showed a different date. | 2/5 tests |
| Users were not able to add notes to the task because the text box was too narrow. | 1/5 tests |
|  |  |  |
| User Testing | Many users found user testing to be creepy. | 4/5 tests |
| Remove Chore | Because of the discrepancy between Chores versus Tasks, users were unsure how to remove a chore or task. | 1/5 tests |
| Tasks already added still appear in the calendar even if the Chore was removed from the system. This was confusing to users when trying to remove a Chore. | 1/5 tests |

Outcomes:

Below is a list of results that we have taken into consideration and the changes we made. The summary of the problem is listed, then some notes on what we did to fix the problem, and the Functional Specification each change applies to.

|  |  |  |
| --- | --- | --- |
| Assessment Task | Improvements | Functional Specification |
| Manage Chores | We have fixed this problem, and continue to fix the problem for future releases, by being consistent with the naming scheme. Items in the calendar are called “Tasks”, and “Chores” are used for assigning to a task. | View Tasks, Add/Remove Chores |
| User’s Tasks | An easy solution for this would be to make the user icons clickable in multiple places that way a user can always filter out a specific user’s list of tasks. | View Tasks |
| View Tasks for a Month | The “Manage” buttons should be moved to the side, and view chores for an entire month option would be added. | Calendar View |
| Zero based numbering | Improvements can be made in a few places to make the numbering system consistent no matter what format the dates are displayed in. | View Tasks, Add Task |
| Scroll Bars | We plan to implement a custom scrollbar tailored for touch screens in future releases. | Select Person, Select Chore |
| Add Person/Chore | There should be some kind of feedback for what needs to be completed in the forms for adding and person or chore to the system. In a future release once all the fields are filled out it would add the item automatically. Furthermore, if a person tries to add an item that is not completed, some message would be displayed indicating the fields that are blank. | Add Person/Chore |
| Icon Selection | Our ultimate goal for adding a person would be to provide enough icons, or an option to select an icon from somewhere on the computer. This is a feature for future releases. | Add Person/Chore |
| Add Task Note | This feature would be improved in future releases. | Add Task |
| Removing Tasks/People | There were some discrepancies for what options were available on the Select Person panel, as well as removing tasks. These options would be added and improved for future releases. | Select Person, View Tasks |
| User Testing | In future user testing we would have a more elegant solution for recording their activity, possibly multiple smaller cameras that are less noticeable, and mounted microphones that don’t have to be clipped to a shirt. We would try to limit the user’s speculations about how the videos will be used. | User Testing |