eIDEAS

Usability Analysis Report

University of Regina
Health-Esteem

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Introduction

Objectives

The purpose of this document is to analyze the functionality and usability of Health Esteem's eIDEAS application from a qualitative and quantitative perspective. This information is invaluable for future modifications, improvements and additions to the application.

Data Collection Methodology

Data was collected on November 22nd, 2018 from 3:30pm to 5:00pm at eHealth Saskatchewan's Regina office (2130 11th Avenue). It is noted that a time period of 45 minutes per participant may not be enough time to gather all potentially beneficial data.

Data was obtained using a sample size of four(4) participants. These participants consisted of eHealth employees who are potential future users of the application, and were chosen by ENSE496AB class instructor Dr. Tim Maciag and eIDEAS project manager Janice Wilby. We would like to thank these participants for taking time out of their schedules to help improve the eIDEAS application.

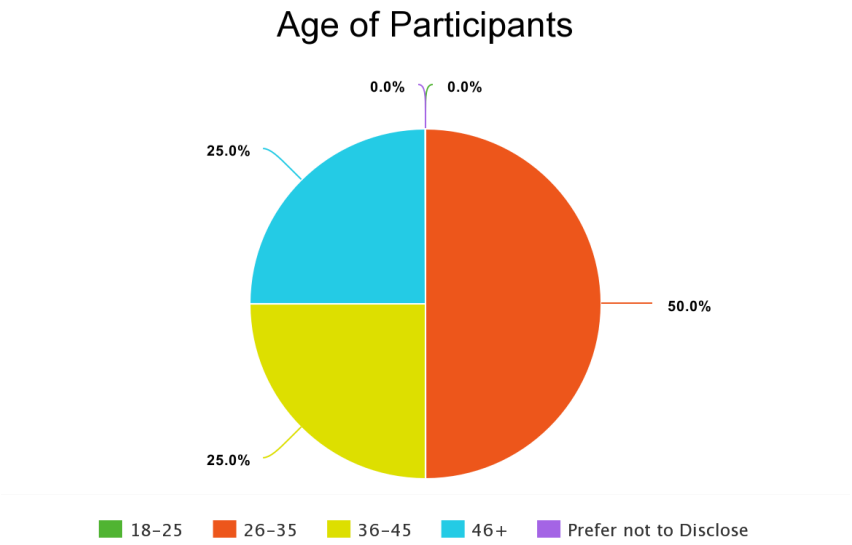
Data was primarily collected through the use of a questionnaire divided into pre-evaluation, evaluation and post-evaluation questions.

Analysis Methods

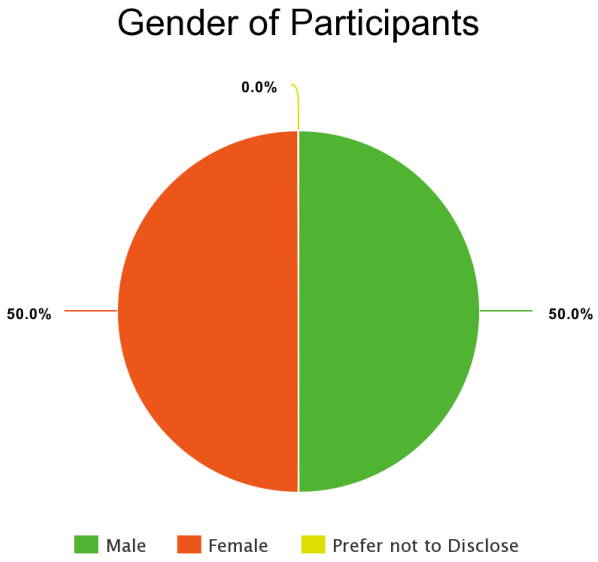
All data obtained from participants has been anonymized. Where applicable, pie charts and other graphs are utilized to visualize quantitative data. Qualitative data has instead been compiled and summarized across participants.

Pre-Evaluation Analysis

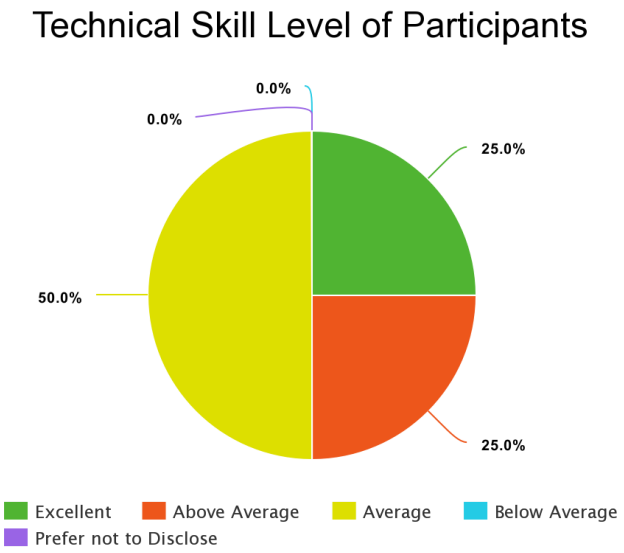
Demographics



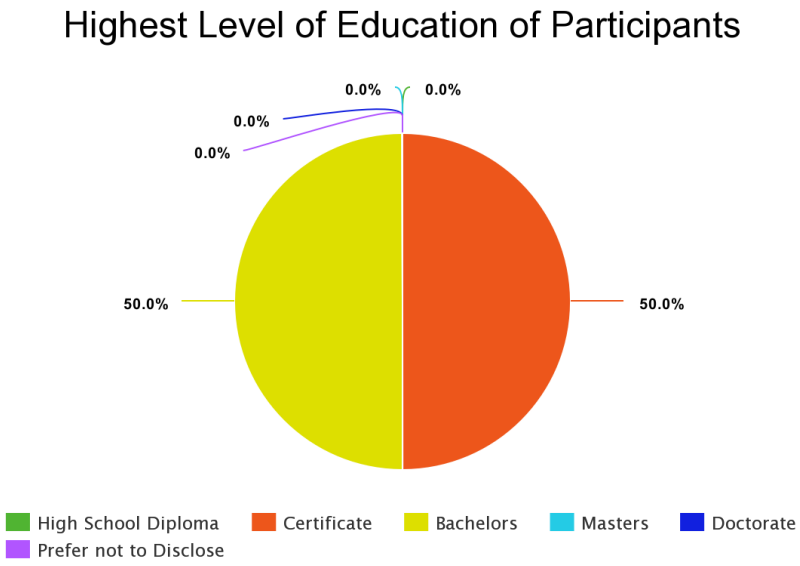
All participants were 26 years of age or older. A majority of the participants were in the age range of 26 to 35 years old.



An equal distribution of male and female participants were interviewed during the usability analysis process.



All participants considered themselves to have an at least an average technical skill level. Several participants considered themselves to have a higher-than-average technical skill level.



The highest education level of participants was equally distributed between a certificate and a bachelor's degree.

Additionally, it was observed that participants came from four different teams at eHealth and have all participants worked for the organization for between 2.5 and 6 years.

Initial Thoughts

eIDEAs Expectations

Before interacting with the application, participants were asked for their expectation of the eIDEAs application. The general consensus was that eIDEAS should provide eHealth employees with a centralized location for submitting and tracking ideas. These ideas should be based on identifying room for improvement to support the goal of bettering the organization. Additionally, multiple participants identified that the interface should be user-friendly. Fortunately, these goals aligned with Health Esteem's understanding of the application obtained during the initial stages of the application's implementation.

All participants identified that they believed they would be a regular user of the eIDEAS application. This acknowledgement supports the belief and wish that all participants are interested in the development, implementation and improvement of eIDEAs.

Additionally, all users identified that they believed that the implementation of eIDEAs would be beneficial to eHealth. However, it was also indicated that it would be difficult to implement such an application if individuals were reluctant to trying the application.

Merchandise

Participants were asked if they owned any eHealth merchandise and if they were interested in obtaining more. The intent of this question was to obtain feedback associated with the potential use of merchandise within the application's potential reward system.

Most participants indicated that they possessed small eHealth merchandise items such as lanyards and water bottles. Several participants indicated that they would be interested in obtaining more merchandise, while others indicated that they had no desire to obtain new merchandise or would only be possibly interested if it were inexpensive.

Evaluation Analysis

During the eIDEAS usability evaluation analysis, participants were asked to perform a variety of tasks without being informed how that task is achieved. The purpose of this methodology was to observe if the user interface of the application clearly indicated the available functionality. The time required to perform each task was noted, and users were asked to identify any issues or expectations they encountered while attempting to perform a given task.

Note that no tasks associated with the administration panel were included as it was deemed more important to focus on tasks that could be performed by all users of the application.

Account Registration and Login

The first task provided to the participants was to create an account and log into the application. The average time to complete this task was 1 minute and 52 seconds. However, this number was inflated by two issues identified during the registration process. Firstly, it was discovered that attempting to create an account with a weak password would remove the options for division and unit selection. Additionally, it was revealed that attempting to create an account without an Internet connection would result in the application timing out due to the inability to send an account verification email. Both of these issues were immediately flagged as bugs and have been resolved in the final deliverable for the product.

Homepage

Upon logging into the application, participants were immediately redirected to the home page. They were then asked what kind of information they would expect to see on this page. Suggested features included a newsfeed for important team and organizational information, an explanation of the program and a customizable dashboard. While the newsfeed and a frequently asked questions page exist, a customizable dashboard may be worth investigating if this project is chosen to be taken further.

Idea Creation

In terms of idea creation, participants were first tasked with creating a new idea and saving it as a draft. The average time to complete this task was 1 minute and 18 seconds. While no participants indicated any issues performing this task, it was observed that many of them appeared to be searching for the ability to create an idea directly from the navigation bar.

Participants were then asked to create and submit a new idea. The average time to complete this task was 55 seconds, indicating that it became quicker to submit an idea as familiarity with the application increased. No major issues were identified by participants for this task.

Idea Interaction

In terms of idea interaction, participants were tasked with viewing additional details about an idea. The average time to complete this task was 2 seconds. Although no issues were identified by participants for this task, it was observed that multiple participants clicked on the title of the idea. As such, the ability to expand an idea by clicking on its title has been added to the final deliverable for the application.

Participants were then tasked with tracking and rating an idea. The average time to complete this task was 18 seconds. Multiple participants indicated that they did not initially understand the purpose of tracking ideas. Additionally, participants suggested a more clear indication to the user when an idea is rated or tracked.

Next, participants were asked to leave an amendment on an idea. The average time to complete this task was 17 seconds. While no issues were identified by participants for this task, it was suggested that renaming amendments to comments would make their intended purpose more clear to the user. This suggestion was agreed upon by the development team and has been added to the final product deliverable.

Finally, participants were asked to filter an idea based on a criteria of their choosing. The average time to complete this task was 1 minute. Some participants were uncertain of how to accomplish this goal and required additional support. Additionally, multiple participants attempt to search for an idea using the search box which had not yet been implemented on the date of the usability analysis.

Idea Progression

In terms of idea progression, participants were first tasked with advancing an idea from the “Plan” status to the “Check” status. The average time to complete this task was 23 seconds. While no major issues were encountered, it was observed that some users attempted to click directly on the progression bar to achieve this task. To mitigate this, the final deliverable of the product will include a hover tip on the progress bar to utilize the buttons provided for idea progression on the right-hand side of the idea panel.

Users were then asked to abandon their idea. The average time to complete this task was 12 seconds. No issues were identified by participants for this task.

Statistics and Leaderboards

In terms of statistics and leaderboards, participants were first tasked with viewing their team statistics. The average time to complete this task was 26 seconds. No issues were identified by participants for this task.

Users were then asked to view the individual leaderboard. The average time to complete this task was 12 seconds. No issues were identified by participants for this task. When asked what kind of reporting or graphs they would like to see on this page, participants indicated that the ability to export the information into a spreadsheet could be useful. This functionality could be worthwhile to explore if this application is chosen to be taken further.

Profile Page

In terms of a user profile, participants were first tasked to view their profile page. The average time to complete this task was 2 seconds. No issues were identified by participants for this task.

Participants were then asked to update their profile picture. The average time to complete this task was 15 seconds. An issue with browser caching prevented the image from being immediately updated for some participants. Additionally, multiple users attempted to change their profile picture by clicking of their current profile image. This functionality has been added to the final deliverable for the product.

FAQ Page

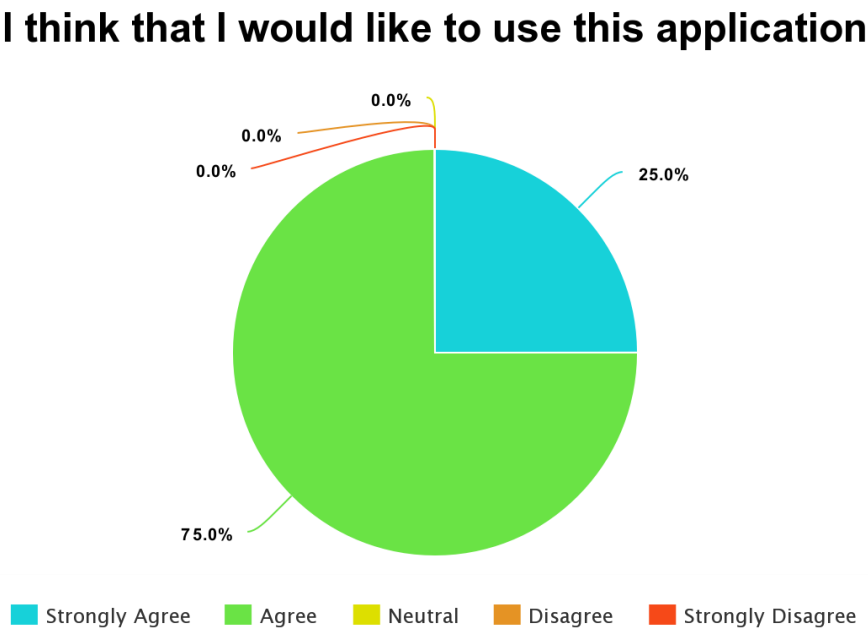
In terms of frequently asked questions, participants were first asked to view the FAQ page. The average time to complete this task was 3 seconds. No issues were identified by participants for this task.

When asked for questions that should be answered within this page, participant responses included how to view team information, what PDCA means, what an amendment is and how to customize your dashboard. These suggestions were taken into account for improvements to this page in the final project deliverable. It was also suggested that users should have the ability to submit their own questions. This functionality could be worth exploring more in-depth if the project is selected for future enhancements.

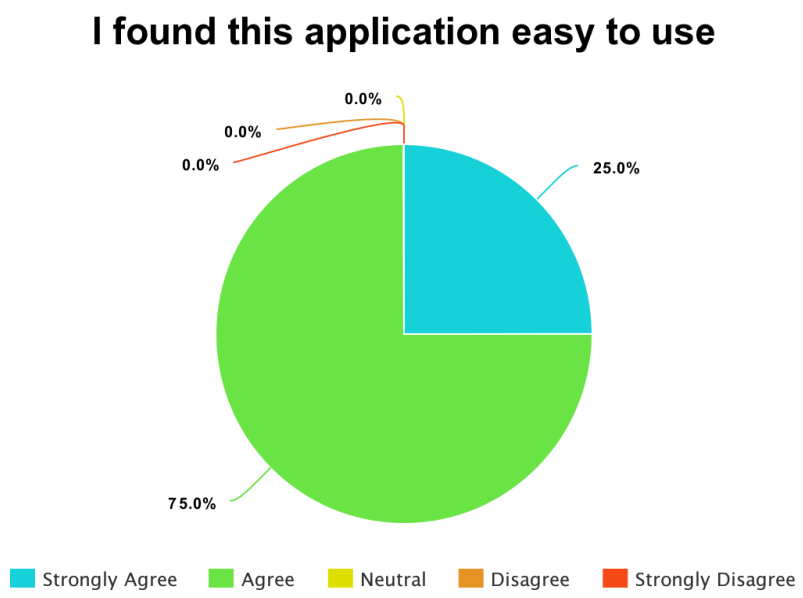
Post-Evaluation Analysis

The Rating Questions

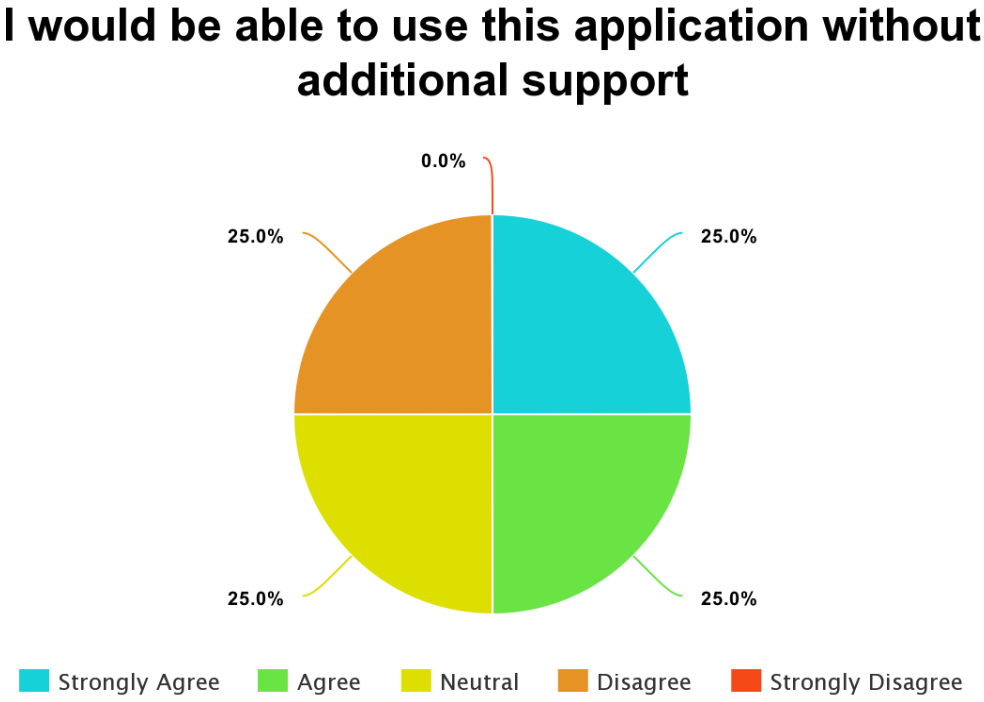
Following the evaluation, users were asked to answer ten opinion-based questions. The available options were “Strongly Agree”, “Agree”, “Neutral”, “Disagree” and “Strongly Disagree”. This section summarizes the response these post-evaluation rating questions. These questions are summarized in the pie charts shown below with additional thoughts and comments attached. Please note that some participants had stated that they did not want to strongly agree or disagree.



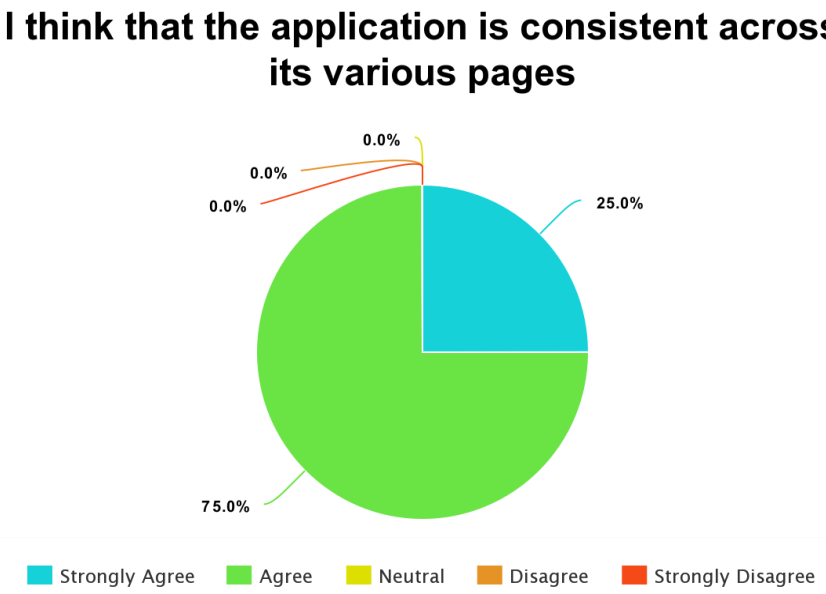
All participants indicated that they would be interested in using the application.



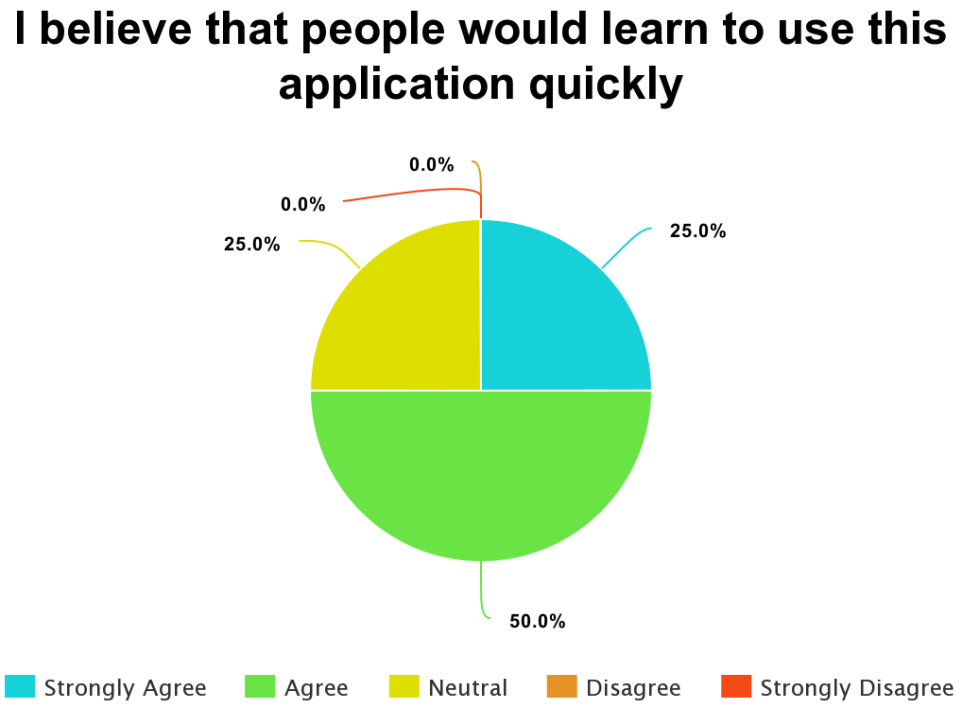
All participants indicated that the application was easy for them to use.



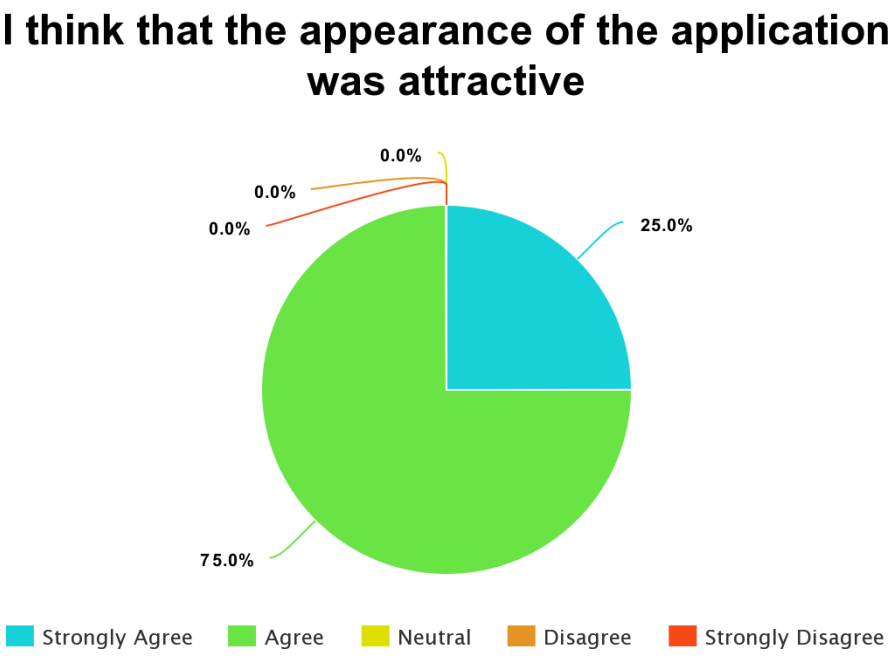
The conflicting results shown in this chart reveal that some users would benefit from additional support for the eIDEAS application. This observation enforces the importance of improvements to the FAQ page and the continued development of a supporting user manual.



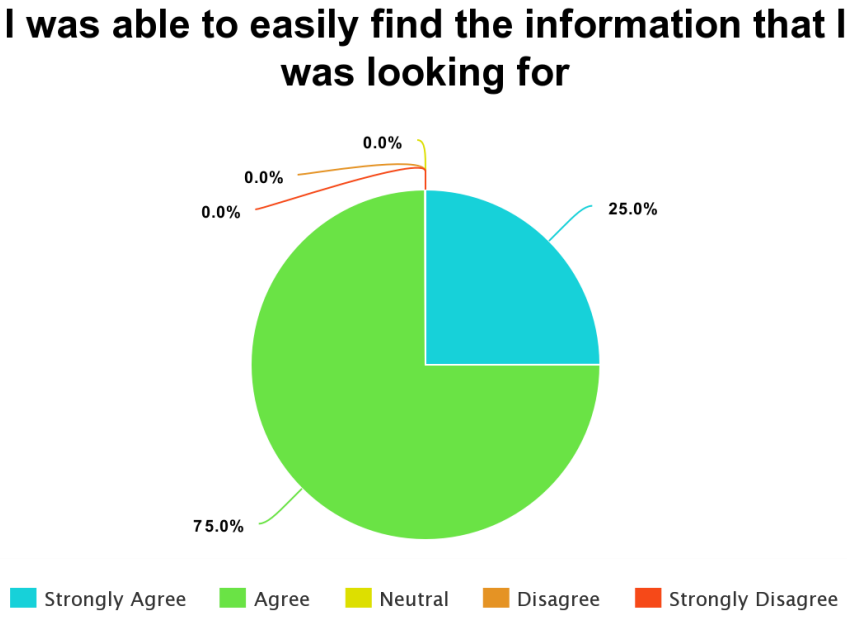
All participants indicated that the appearance of the application was consistent.



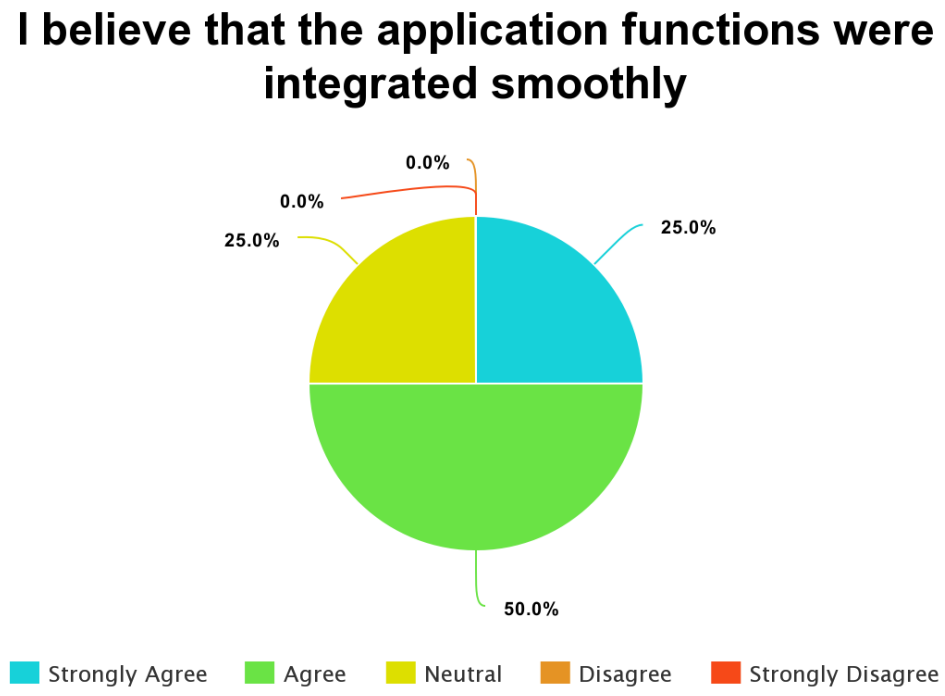
Most participants believed that usage of the application could be learned quickly. The provision of a user manual will hopefully aid in this goal.



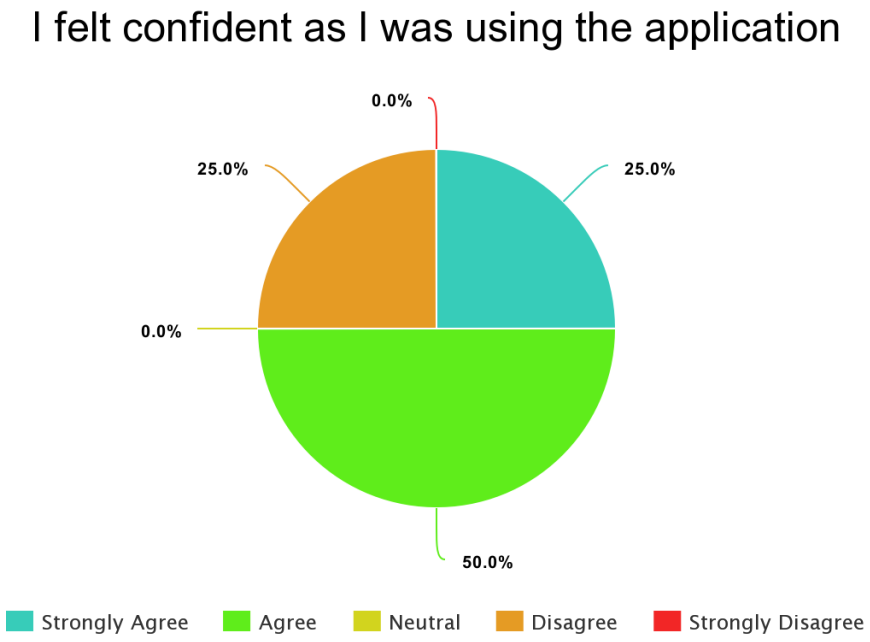
All participants agreed that the appearance of the website was attractive.



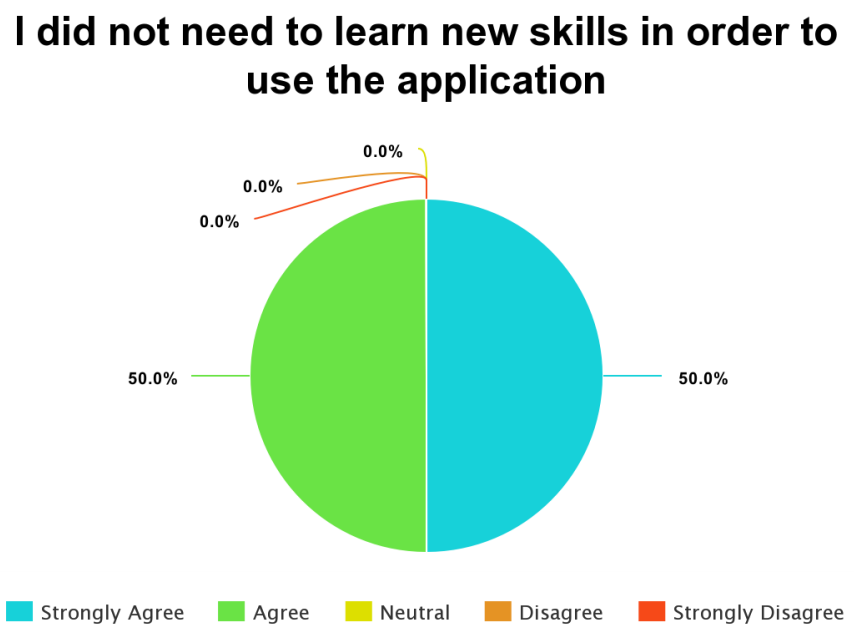
All participants believed that they could easily find the information that they were interested in finding throughout the application.



Most participants believed that the application functions were integrated smoothly. The resolution of bugs encountered during the usability analysis should further support this belief.



Almost all participants felt confident while using the application. The provision of a completed user manual should help reinforce this belief.



All participants indicated that no new skills were required to use the application.

Parting Thoughts

At the conclusion of the analysis, users were asked to answer three qualitative questions. Note that the answers to some of these questions were short or nonexistent due to time constraints.

Participants were first asked to identify their favorite and least favorite parts of the application. It was indicated that the users believed that the application was user-friendly and easy to use. The appearance of the ideas dashboard was also complemented. The only negative feedback provided for this question was a wish for more documentation on the intermediate steps as an idea progresses through the PDCA flow.

Participants were then asked how they would envision a rewards system within the application. Of those who responded, it was suggested that gamification and the presence of both individual and team rewards could be useful. Overall, the implementation of a rewards system was not considered to be a priority for the participants and was thus deprioritized for the final deliverable.

Participants were then asked to provide any parting thoughts. The only feedback provided for this question was that minimizing the number of clicks required for a task is optimal.