FIT3175 - Usability - Stage E - Report Group 12 E Kenny Ye (28782151) Elysia Teo (29684935) Guanyu Tian (29294282) Maximillian Purnomo (29411122) Vionnie Tan (30092809)

Introduction - Idea	4
Evaluation Plan	5
Phase 1 - User Performs Task	5
Phase 2 - Semi-Structured Interview (Feedback)	5
Phase 3 - Standardised User Experience Questionnaire	6
Evaluation Result	7
Phase 1: User Performs Task	7
Phase 2 - Semi Structured Interview	8
Phase 3 - Standardised User Experience Questionnaire	11
Analysis Report	12
APPENDIX - Raw Evaluation Results	14
Respondent 1	14
Phase 1 - User Performs Tasks	14
Phase 2 - Semi Structured Interview	14
Phase 3 - Standardised User Experience Questionnaire	15
Respondent 2	16
Phase 1 - User Performs Task:	16
Phase 2 - Semi Structured Interview	16
Phase 3 - Standardised User Experience Questionnaire	17
Respondent 3	18
Phase 1 - User Performs Tasks	18
Phase 2 - Semi Structured Interview	18
Phase 3 - Standardised User Experience Questionnaire	19
Respondent 4	20
Phase 1 - User Performs Tasks	20
Phase 2 - Semi Structured Interview	20
Phase 3 - Standardised User Experience Questionnaire	21
Respondent 5	22
Phase 1 - User Performs Tasks	22
Phase 2 - Semi Structured Interview	22
Phase 3 - Standardised User Experience Questionnaire	23
Respondent 6	24
Phase 1 - User Performs Tasks	24
Phase 2 - Semi Structured Interview	24
Phase 3 - Standardised User Experience Questionnaire	25
Respondent 7	26
Phase 1 – User Performs Task	26
Phase 3 - Standardised User Experience Questionnaire	27

Respondent 8	28
Phase 1 – User Performs Task	28
Phase 2 - Semi Structured Interview	28
Phase 3 - Standardised User Experience Questionnaire	29
Respondent 9	30
Phase 1 - User Performs Tasks	30
Phase 2 - Semi Structured Interview	30
Phase 3 - Standardised User Experience Questionnaire	31
Respondent 10	32
Phase 1 - User Performs Tasks	32
Phase 2 - Semi Structured Interview	32
Phase 3 - Standardised User Experience Questionnaire	33

Introduction - Idea

Our group has collectively designed a prototype aimed towards overcoming the rising issue regarding the absence of a dedicated centralised platform providing individuals with the ability to manage their vaccination history. This centralised mobile platform would also provide necessary information regarding vaccinations which, in the long run, would allow individuals to be more proactive regarding taking vaccinations. As identified previously, the main users of our app would be individuals who acknowledge the importance of vaccinations and want to have an efficient way to manage their vaccination history and tasks.

Several notable features presented in our prototype are a location services map that shows nearby medical centres which offer vaccinations, an option to make a booking, reminders for all the appointments that are in progress, the ability to create and login to a profile that contains all the users' information, a way for users can also upload or log their vaccination history and a calendar which gives the user an accessible way to manage their booking information

For this part of our assignment, we aim to collectively ask random users (i.e preferably those who would use the application in the future), to see whether or not our proposed prototype achieves great usability and if it is a successful solution towards the vaccination industry. After we have collected these data, a report will then be provided detailing our findings.

The link to our Figma prototype is: https://www.figma.com/proto/qDfZzx2HKr59391OlawLmC/Team-12E-Stage-D-High-Fidelity-Protoype?node-id=8%3A0&scaling=scale-down

Evaluation Plan

Phase 1 - User Performs Task

Without any prior interaction with the application, the interviewee would be asked to perform a random task. The device's screen would be recorded as they attempt to complete the given task. The user's recording will then be analysed and the following points will be noted, the quantitative data can be extrapolated to determine the general usability of the application.

What to track as the user performs the task:

- Able to complete the task yes/no
 - Failure to complete the task within a reasonable amount of time would ultimately prove that the application may have some design flaws.
- Time taken to complete task timed
 - To test how long it takes for a task to be completed. Length of time can indicate the efficiency of a user interface design.
- Number of clicks/taps taken to complete the task counted by interviewer
 - To indicate whether or not the app is efficient enough that the users does not take excessive amounts of clicks/taps
 - Could also indicate that button targets are too small or in hard to reach areas
- How many times the user diverged from the optimal flow of the task
 - Tests whether the interface design is intuitive and contains informative feedback to guide the user to complete the task
 - It can also be an indication of whether or not the design is consistent with existing UI designs.
- How long until the user went back on the optimal flow of the task after diverging
 - To test how long a breakdown causes the user to stop thinking about the task.
 The length of the time indicates the level of distraction while user performing the specific task

Phase 2 - Semi-Structured Interview (Feedback)

- Topics/Themes to Cover during the interview
 - Understanding of the application layout
 - Ease of use
 - Learnability of the application
 - Expectations of the application
 - Overall app aesthetics
- Final Thoughts and Remarks

Phase 3 - Standardised User Experience Questionnaire

As part of our evaluation plan, the interviewee would be asked to fill out a standardised user experience questionnaire that would help us further evaluate the efficiency and overall usage of our prototype. The standardised user experience questionnaire that we will be using is obtained from this website https://www.ueq-online.org/

Evaluation Result

Phase 1: User Performs Task

Task 1: Login and Add a Vaccine Record						
Field to track	Results					
Able to Complete the task	6 yes, 0 no					
Average time to complete	1 minute and 39 seconds					
Average number of taps to complete the task	19.87 taps					
Average number of times diverged from optimal flow of the task	2 times					
Average time to go back to the optimal flow of the task after diverging	30.3 seconds					

Task 2: Sign up, Login and Add Search for a Location	
Field to track	Results
Able to Complete the task	6 yes, 0 no
Average time to complete	1 minute and 44 seconds
Average number of taps to complete the task	17.83 taps
Average number of times diverged from optimal flow of the task	2.8 times
Average time to go back to the optimal flow of the task after diverging	45.8 seconds

Phase 2 - Semi Structured Interview

Respondent 1	 Task 1: Log in and add a vaccine record Understanding of the application layout (Qs 1) Layout is organized consistently to show just the main features on the bottom of the screen Has minimalistic design Would prefer to have bigger icons as they were on the smaller side Learnability of the application (Qs 3) Most of home screen buttons didn't lead to anywhere Transitions were really smooth and every screen had same sized text and color Expectations of the application (Qs 2) Has all the basic features such as information on different vaccines and the reminder feature was also a nice touch Would've been more complete if the prototype had a profile icons at the bottom menu instead of my records Overall app aesthetics (Qs 2) Blue color was ok, but would've preferred a more neutral colour for an app focusing on the medical field.
Respondent 2	 Task 2: Sign up, login and search for a specific location Understanding of the application layout (Qs 1) Layout was really organized, can go from one feature to another in just a single tap Ease of use (Qs 1)
Respondent 3	Task 1: Log in and add vaccine record Understanding of the application layout (Qs 3) • Easy to navigate - still had to trial and error for functionality - home screen should link to all pages Ease of use (Qs 4) • Issues with swiping on the login cards Learnability of the application (Qs 2) • Easy to learn - knows where to go next time Overall app aesthetics (Qs 1) • Positive remarks - very professional - a little inconsistent

Respondent 4	Task 2: Sign up, login and search for a specific centre Ease of use (Qs 1) • Unsure of the apps purpose - trial and error to find the vaccine centre page Learnability of the application (Qs 2) • Although unsure of applications purpose, upon second time can easily perform task Overall app aesthetics (Qs 3) • Good design, not flashy, meets expectations
Respondent 5	 Task 1: Log in and add vaccine record Task 2: Sign up, login and search for a specific centre Understanding of the application layout (Qs 1) The application's layout looks really neat and organized makes it easier to read Ease of use (Qs 1) The respondent said that the use of the application is easy as each section and icon represent what the functions or features it holds. Learnability of the application (Qs 1) It is easy just to learn just from looking at the icon Expectations of the application (Qs 2) The expectation of the respondent is fulfilled, just need a little improvement in the location Overall app aesthetics (Qs 3) The overall aesthetics are great as the color combination of blue and white makes the apps become more appealing.
Respondent 6	 Task 1: Log in and add vaccine record Task 2: Sign up, login and search for a specific centre Understanding of the application layout (Qs 3) The overall layout is good, but the respondent is not content with the my record layout, she suggested that the profile is combined with the vaccine records. Expectations of the application (Qs 1 & 2) The apps' features fulfilled the respondent expectation for the most part, but the respondent is expecting a way to have a chat with an expert through the app.
Respondent 7	 Task 1: Log in and add vaccine record Understanding of the application layout Had difficulty navigating the plus button at the button of the add new record page. Ease of use Stated that she had difficulty navigating herself, but usually has the same problems and learning curves with apps in general. Learnability of the application Believes that she will be able to learn the app easily as once she realised the optimal paths, she could understand the buttons and icons better. Overall app aesthetics Described app as very blue, uncluttered screens, helpful to have descriptions under the icons in the menu bar.

Respondent 8	 Task 2: Sign up, login and search for a specific centre Ease of use (Qs 1) Stated that app was easy to use as icons and button labels made sense and represented their functions well. Learnability of the application (Qs 2) Stated that layout was similar to other apps and so was familiar and easy to learn Overall app aesthetics (Qs 3) Described as clean and simple, suits the nature of the app and consistent colour palette.
Respondent 9	 Task 1: Log In and Add vaccine record Ease of use (Qs 2): Participant said that it is easy to use the app but the ticks for the records cause distraction from the optimal path of the task Expectations of the application (Qs 3): Participant mentioned that the app basically covers the expectations but the contrast in the search bar is not clear to read Overall app aesthetics (Qs 1): Participant mentioned that the overall aesthetics looks good especially the the font and the buttons are familiar for the participant to use
Respondent 10	 Task 2: Sign up, login and search for a specific centre Understanding of the application layout (Qs 3): Participant stated that the overall layout of the app looks good, but the app can be more accessible for users Ease of use (Qs 1): Participant stated that the app is easy and neat to use but some text and buttons can be larger for users to read or tap Expectations of the application (Qs 2): Participant mentioned that the app basically meets the expectations for the process, but there could be more interactions for transferring between the interfaces for the app to provide more convenience

Phase 3 - Standardised User Experience Questionnaire



Attractiveness

Overall impression of the product. Do users like or dislike it?



Dependability

Does the user feel in control of the interaction? Is it secure and predictable?



Perspicuity

Is it easy to get familiar with the product and to learn how to use it?



Stimulation

Is it exciting and motivating to use the product? Is it fun to use?



Efficiency

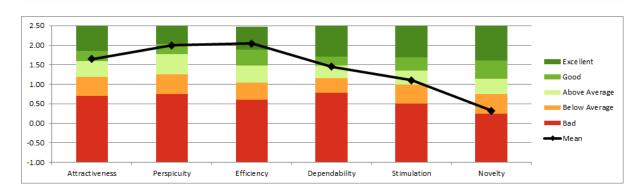
Can users solve their tasks without unnecessary effort? Does it react fast?



Novelty

Is the design of the product creative?

Does it catch the interest of users?



Analysis Report

The two tasks chosen for evaluation were:

- 1. Login into an account then adds a vaccine record into the "my records" section.
- 2. Sign up, login and search for a specific location (Westall Medical Clinic)

We have chosen these tasks according to the questionnaire and persona which revealed that most people are not aware of what vaccines they have taken, and places that offer certain vaccines. These two tasks cover functions and user stories that directly relate to these main concerns. For the evaluations, we have gathered data from 10 respondents who attempted the tasks without ever seeing the prototype. This allows us to obtain accurate and controlled results for each task so that we can deduce different aspects of UI design feedback from our potential users.

The analysis made on Phase 1 was divided into the 2 tasks described above, and from this, we can see that the respondents averaged 1 minute and 39 seconds to complete Task 1 which is on the faster side as it would take us (i.e the designers) around 15-20 seconds to carry out while Task 2 took an average of 1 min and 44 seconds. Accounting for first time user's need to analyse icons, buttons and information on the screen, the mean duration proves to be a reasonable and promising result. The small difference in time between both tasks also indicates that there was no major time difference between a first time user, who has to sign up first and a recurring user, who just needs to log in.

As we examine further into Phase 1's analysis, respondents averaged around 20 taps to complete their given task which was a fair number as it involves tapping on random places and also undeveloped functionalities. Adding to this, we also calculated the amount of times users diverged from the optimal flow of the task and their corresponding time taken to reverse back to the optimal path. For Task 1, the respondents didn't diverge frequently from the optimal flow as on average they only diverged 2 times from the optimal flow and it took only around 30.3 seconds for them to realise that they were in the wrong way to complete the assigned task. Whereas for Task 2, participants diverged from the optimal flow of the task 2.8 times for an average duration of 45.8 seconds. Although these statistics show that improvements can be made to lower the instances of users diverging from the optimal path, the ability of all participants to navigate back to the task flow suggests that the design permits easy reversal of actions.

Moving forward to the analysis of Phase 2, this part of the report will focus on the 5 bullet points namely - understanding of the application layout, the ease of usage followed by the user's expectation of the prototype, its learnability and finally, the overall app aesthetics. Regarding the layout of the application, respondents had an overall mixed review, with some claiming that the size of the icons was too small and some icons that used complex icons were incomprehensible. The other majority of respondents were satisfied with the overall layout as it was consistent and organized, especially the contrast of the blue, grey and white colouring and the unchanging font and text sizes. Another downside to the prototype was that the ticks presented in the record column were deemed confusing to some users and

there was also a minor issue regarding the swiping on the login screen. Despite this, a larger number of respondents positively commented on how the prototype was simple and its operations mimic their generally used applications. User's expectations were also reached as the prototype covers all basic functionalities of a working app but the lack of a profile page slightly disappointed the respondents.

The presence of several notable "breakdown" moments were apparent from the phase 2 analysis when the users were asked to comment on the learnability of the prototype. Some respondents felt that the arrowheads presented on the information page could be greatly improved as the current one was considered as confusing. These users also felt that there needed to be more interactions between the interfaces for them to go back from the detail page to the map page. An additional chat box would also be appreciated. Finally, the aesthetics of the prototype were well received by respondents, but some felt that it could be improved by choosing a more neutral palette as the contrasts between the functionalities were hard to distinguish.

The final stage of the analysis was phase 3, a standardised user experience questionnaire (UEQ). The premise behind using a standardised test is that it is backed by extensive testing and created by a professional team: Andreas Hinderks (Master of Informatics), Martin Schrepp (PhD in Psychology) and Jörg Thomaschewski (Usability Professor). Along with a reputable source, standardised tests also feature comprehensive analysis tools that make understanding the results easy to extrapolate on.

Upon inputting the raw data the UEQ Data Analysis Tool Version 8, which provides insights on 6 defining features of the UEQ: Attractiveness, Perspicuity, Efficiency, Dependability, Stimulation and Novelty.

It can immediately be seen from the evaluation results of the UEQ that the tested application performs very well in the first 5 categories: Attractiveness, Perspicuity, Efficiency, Dependability, Stimulation. The only category with sub-par results is Novelty. The results from this UEQ consolidate the information gathered in the earlier sections, with one of the main concerns arising from the product creativity of the application. Several respondents raised slight concerns with the innovativeness and creativity and the design and experience.

In conclusion, our report suggests that some minor tweaks towards our prototype would be needed to achieve greater usability and remove some of the "breakdown" problems. The personas, user stories and sketches made previously have contributed a lot of ideas for us to complete and analyse the problems and it's apparent that we've learned a lot compared to when we first began.

APPENDIX - Raw Evaluation Results

Respondent 1

Age: 19

Occupation: Student

Prior Knowledge on vaccines: 4/10

Phase 1 - User Performs Tasks

Task 1: Log in and add a vaccine record

- Able to complete the task: Yes
- Time taken to complete task: 1 min 35 secs
- Number of clicks/taps taken to complete the task: 17 taps
- How many times the user diverged from the optimal flow of the task: 2 times
- Total time spent outside optimal path: 45 secs

Phase 2 - Semi Structured Interview

Question 1

Tell us your opinion regarding the layout of the prototype.

Response

The layout in itself is organized consistently to show just the main features on the bottom of the screen and has some extra hidden features with the hamburger and settings icon. Was it easily understandable? It was easily understandable with its minimalistic design. The icons were similar to what you would find on a real application. What would you change in order to have an even better layout? If I was to make changes towards the layout, I would prefer the icons to be larger in size that would help with older users that do not have good eyesight.

Question 2

You've looked around and played with the prototype, could you explain to me your general expectations of the app?

Response

Firstly, I expected the app to have some general information regarding the different types of vaccinations, and also a reminder feature to let us users know when the next vaccine is due. Did the prototype deliver all your expectations? On a wide scale, the prototype surpassed my general expectations, although I would've liked to see a profile icon at the bottom menu bar instead of my records. Could you comment on the aesthetics of the app? The color scheme chosen which was blue and white was nice, although I felt that for an app focusing on the medical field, it should have a more neutral color like grey.

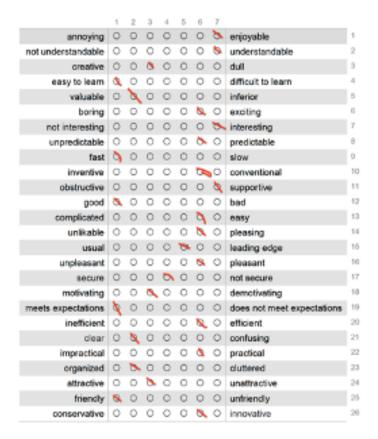
Question 3

When you were playing around with the prototype, were you able to distinguish what different icons did?

Response

Other than the fact that most of the home screen buttons didn't lead to anywhere, despite having a bunch of icons, the prototype shown was really straightforward, and it was easy to use. The transitions were really smooth as the sizes of the text and the color scheme didn't change from screen to screen. I did notice in one of the screens, there was a missing header which didn't really affect the outcome, but would've been nice if the prototype didn't have this flaw as it would've been outstanding.

Phase 3 - Standardised User Experience Questionnaire



Age: 26

Occupation: Employee

Prior Knowledge on vaccines: 6/10

Phase 1 - User Performs Task:

Task 2 : Sign up, log in and search for a specific location

- Able to complete the task: Yes
- Time taken to complete task: 2 min 23 seconds
- Number of clicks/taps taken to complete the task: 32 taps
- How many times the user diverged from the optimal flow of the task: 4 times
- Total time spent outside optimal path: 1 min 25 seconds
- Number of times user diverged from optimal path: 3 times

Phase 2 - Semi Structured Interview

Question 1

Tell us your opinion regarding the layout of the prototype.

Response

The design was minimalistic which made the layout look very organized. The bottom menu screen was also really useful as if you wanted to know the location of a hospital, you can just click the maps icon, and if you wanted to know information regarding a vaccine, you can just press the information icon and it would be there. Was the prototype given easy to use? The prototype given was convenient, fast and easily understandable with all the icons that were present.

Question 2

Were the different gestures in the prototype, coupled with the different arrowhead icons easily understandable?

Response

Mostly it was straightforward on what the icons would do, like the back button on the top left of the screen. But there were also some gestures that, at first glance, I couldn't comprehend. The information screen is one example, I couldn't really understand the arrow pointing sideways and downwards and just the overall layout itself doesn't really fit with other screens. It has more white colour instead of blue.

Question 3

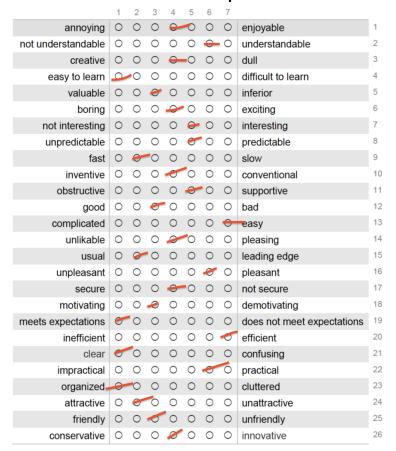
In your opinion, does aesthetics matter in the development of an app?

Response (paraphrased)

Yes, because if the application is not designed properly, us as a potential user won't be attracted to it. Even if the designed app was aimed towards the medical field, it should have reached a certain degree of aesthetics in order to attract users and in turn, attract application

usage. Would you like to comment on the aesthetics of this prototype? Perhaps on where we could improve on? The aesthetics on the prototype was ok, it's not that fancy and doesn't attract unwanted attention. The blue colour mixes with the white and grey texts very well.

Phase 3 - Standardised User Experience Questionnaire



Age: 21

Occupation: Software Engineering Student

Prior Knowledge on vaccines: 7/10

Phase 1 - User Performs Tasks

Task: Log in and add a vaccine recordAble to complete the task: Yes

• Time taken to complete task: 1 mins 20 secs

• Number of clicks/taps taken to complete the task: 25 taps

How many times the user diverged from the optimal flow of the task: 3 times

• Total time spent outside optimal path: 28 secs

Phase 2 - Semi Structured Interview

Question 1

How would you describe the overall design and interface of the application?

Response (paraphrased)

The design of the application feels very well put together, I felt as though it was professionally made and could definitely see a similar design being used if it were a real application. There was a nice consistent theme, and all the information was laid out logically so that I could perform my task without many issues. However, I did notice that some of the cards had rounded edges and some cards did not. This did not affect the aesthetics that much, but it was definitely not consistent.

Question 2

If you were to repeat the task again (add a vaccination record), how would things differ to your first run?

Response (paraphrased)

With the first time I performed the task, it took me a little while before understanding where to add a vaccination record. Instead of thinking hard about where it could be, I just checked all the tabs and briefly scanned the page until I found it. Since there were only 5 tabs, I found it fairly quickly. If I were to do it again, I could probably go straight to the feature and perform the task.

Question 3

Did you understand the general application layout? Were things easy to find and was the application easy to navigate?

Response (paraphrased)

Yes, the application was fairly easy to navigate, except I had to click around quite a bit before I found what I was looking for. Perhaps the core functionality should be highlighted in the home page and I should be taken there immediately.

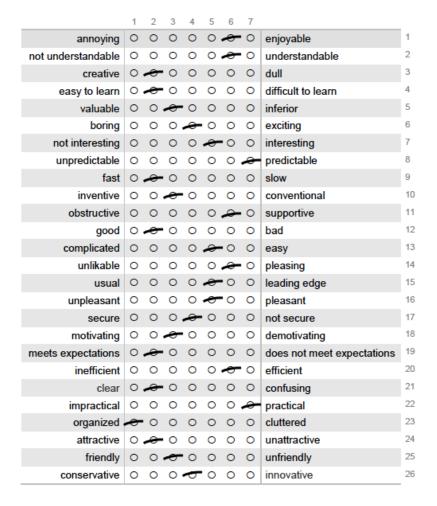
Question 4

Were there any issues you wanted to mention?

Response (paraphrased)

Yes, in the login screen where there were a couple of panels with information, I tried to swipe the cards to see the next one, but nothing happened. I then realised I needed to click the tiny boxes underneath to change the card. I would add a swipe gesture here and also make the boxes easier to click, they were very tiny and hard to pinpoint.

Phase 3 - Standardised User Experience Questionnaire



Age: 26

Occupation: Unemployed

Prior Knowledge on vaccines: 5/10

Phase 1 - User Performs Tasks

Task: Signup and login to account and search for a specific centre

- Able to complete the task: Yes
- Time taken to complete task: 3 mins 13 secs
- Number of clicks/taps taken to complete the task: 31 taps
- How many times the user diverged from the optimal flow of the task: 5 times
- Total time spent outside optimal path: 1 minute 41 secs

Phase 2 - Semi Structured Interview

Question 1

Did you find your task to be easy to do? Did you have any difficulties?

Response (paraphrased)

I didn't really know what the application was about, I knew it had something to do with vaccines quite quickly, but that was all I could gather. I was unsure where to find a vaccination centre, I simply tapped around aimlessly for a while. Only after a while I found the centres in the map section, that was quite confusing to me.

Question 2

If you were to perform your task again (search for a specific centre), how would things differ to your first run?

Response (paraphrased)

I guess now that I know where to find a vaccination centre, I could go immediately to the map section. So it'll be a lot faster, and now that I think about it, it does make sense that it belongs there.

Question 3

Did you find the design and feel of the application pleasant to use?

Response (paraphrased)

Yes I think the general design and look of the application was good. It wasn't too flashy, pretty much what I expected from an application of this nature.

Phase 3 - Standardised User Experience Questionnaire

	1	2	3	4	5	6	7		
annoying	0	0	0	0	0	0	9	enjoyable	1
not understandable	0	0	0	0	P	0	O	understandable	2
creative	Ø	0	0	0	0	0	0	dull	3
easy to learn	0	0	Ø	0	0	0	0	difficult to learn	4
valuable	0	0	9	0	0	0	0	inferior	5
boring	0	0	0	0	0	Ø	0	exciting	6
not interesting	0	0	0	0	0	Ø	0	interesting	7
unpredictable	0	0	0	0	0	0	Ø	predictable	8
fast	0,	-	0	0	0	0	0	slow	9
inventive	0		0	0	0	0	0	conventional	10
obstructive	0	0	0	0	0	4	0	supportive	11
good	0	0	1	0	0	0	0	bad	12
complicated	0	0	0	0	0	Ø	0	easy	13
unlikable	0	0	0	0	0		0	pleasing	14
usual	0	0	0	9	0	0	0	leading edge	15
unpleasant	0	0	0	0	Į	0	0	pleasant	16
secure	0	0	0	Ø	0	0	0	not secure	17
motivating	0	0	0	0	0	0	0	demotivating	18
meets expectations	0	9	0	0	0	0	0	does not meet expectations	19
inefficient	0	0	0	0	0	•	0	efficient	20
clear	0	Ø	0	0	0	0	0	confusing	21
impractical	0	0	0	0	0	0	0	practical	22
organized	0	B	0	0	0	0	0	cluttered	23
attractive	0	Ø	0	0	0	0	0	unattractive	24
friendly	0	y	0	0	0	0	0	unfriendly	25
conservative	0	0	0	0	•	0	0	innovative	26

Age: 21

Occupation: Student

Prior Knowledge on vaccines: 7/10

Phase 1 - User Performs Tasks

Task 1: Login and add a vaccine record

- Able to complete the task : Yes
- Time taken to complete task : 55 seconds
- Number of clicks/taps taken to complete the task: 10 clicks
- How many times the user diverged from the optimal flow of the task: 1 time
- How long until the user went back on the optimal flow of the task after diverging: 5 seconds

Task 2: Sign up and search for a hospital with the name Westall Medical Clinic

- Able to complete the task: Yes
- Time taken to complete task: 60 seconds
- Number of clicks/taps taken to complete the task: 9 clicks
- How many times the user diverged from the optimal flow of the task: 0
- How long until the user went back on the optimal flow of the task after diverging: -

Phase 2 - Semi Structured Interview

Question 1

Do you think it is easy to find things that you are looking for in this application?

Response (paraphrased)

Yes, it is easy to find the things that I am looking for as the icons in the button clearly represent the function of that section. The application also looks very clean and neat making it easier to read.

Question 2

What are the features that you expect to be in the application, but it is not in the prototype?

Response (paraphrased)

The location section is meant to make the user easier to find the closest place that is available. I hope that I can get a list of hospitals just by entering the postcode of a location that I want to know.

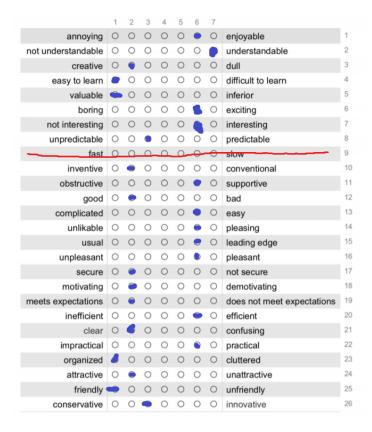
Question 3

What part or features that you really like the most about the application?

Response (paraphrased)

Personally I like the theme in the application as blue makes it more appealing to the eye. The recommended for you part is also one of them as I particularly don't like to read about science, so I thought I will rarely use this application. However, the recommendation of vaccines or shots will make me become interested in reading some part of it as I probably need to take some vaccines.

Phase 3 - Standardised User Experience Questionnaire



Age: 24

Occupation: Accountant

Prior Knowledge on vaccines: 7/10

Phase 1 - User Performs Tasks

Task 1: Login and add a vaccine record

- Able to complete the task : Yes
- Time taken to complete task: 45 seconds
- Number of clicks/taps taken to complete the task : 9 clicks
- How many times the user diverged from the optimal flow of the task: 1 time
- How long until the user went back on the optimal flow of the task after diverging: 10 seconds

Task 2: Sign up and search for a hospital with the name Westall Medical Clinic

- Able to complete the task: Yes
- Time taken to complete task: 65 seconds
- Number of clicks/taps taken to complete the task: 11 clicks
- How many times the user diverged from the optimal flow of the task: 1 time
- How long until the user went back on the optimal flow of the task after diverging: 5 seconds

Phase 2 - Semi Structured Interview

Question 1:

What are the features that you expect to be in the application, but it is not in the prototype?

Response (paraphrased)

Overall, it already includes most of the things that I would need in using the app. However a feature that I would like to see would be a way to contact the experts in case I want to ask something. It would be good if the application accommodates it through the app.

Question 2:

Do you think the apps would do a pretty good job in doing its purpose as a vaccine app that is encouraging and helping people to get a vaccine?

Response (paraphrased)

Yes, it would do really great as it recommends what vaccine I should take, it holds information about any available vaccine and it tells the location of a nearest hospital that provides the vaccine.

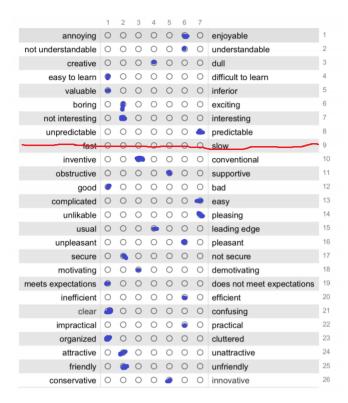
Question 3:

Do you have any other suggestions to further improve the apps?

Response (paraphrased)

I do not see the profile features in the apps, I thought that my profile would be in the my records section but it only has information about the history of vaccines that I have taken. I suggest it would be good to put some profile details there, then the records would be inside the profile section.

Phase 3 - Standardised User Experience Questionnaire



Age: 50

Occupation: Childcare worker, Mother of 3

Prior Knowledge on Vaccines: 6/10

Phase 1 – User Performs Task

Task: Log in and add a vaccine record

- Able to complete the task: Yes
- Time taken to complete task: 2 min 20 seconds
- Number of clicks/taps taken to complete the task: 39 taps
- How many times the user diverged from the optimal flow of the task: 4 times
- Total time spent outside optimal path: 1 min 04 seconds

Phase 2: Semi-structured interview

Question 1

Overall, how easy was it to navigate to your given goal?

Response (Paraphrased)

As with a lot of apps, I had difficulty understanding where I am in the app and where to go next. I am not good at technology at all and I would say my experience was about the same as most other apps when I tried them for the first time. Why did you think you diverged from the optimal path so many times? Usually when I try out apps I learn where everything is by trial and error. I generally know what certain icons represent but sometimes I get them mixed up. For example, I saw the calendar icon and thought calendars usually record important information so I tapped on it before I had the chance to see the "My Records" tab of the bottom menu. Also, It took me some time to see the plus button in the bottom right corner of the app because it was small and white, so I was clicking around trying to figure out where to go next, which led me to other places.

Question 2

Do you think after multiple uses you would be able to learn how the app works and efficiently navigate between functions?

Response (paraphrased)

Definitely, I like to take my time in learning how to use an app, and although in my first try I made a lot of mistakes, I believe that once I am familiar with the app, I would be able to navigate myself quicker and more accurately. Why do you think the app would be easy to learn? Even though I diverged from the optimal path multiple times, once I figured out the right buttons to press, I could see that it was obvious that I had chosen the wrong pathway, and that the correct buttons and icons made more sense.

Question 3

What did you think of the app aesthetically?

Response (paraphrased)

The app was simple and very blue, which I liked. I think the screens were not too cluttered and the sign in screen was very straight to the point. I also think the icons made sense and having the words underneath describing the icons was very helpful.

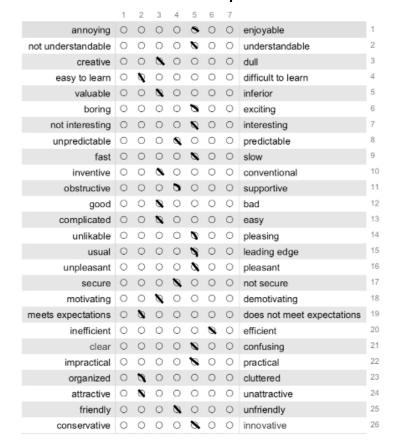
Question 4

Can you see yourself using this app?

Response (paraphrased)

I'm not sure how all the other utilities on the app work yet, but from what you have told me about the concept, I think it would be very useful to me as an individual and a parent. What did you expect the function to be like when you were given the instruction of "adding a new vaccine record"? I thought it would be like how your app was, inputting the vaccine and some details about it, date, vaccine name etc, but I thought there would be more information to fill out, as there usually are on any type of medical records, like where the vaccine was conducted and which doctor it was.

Phase 3 - Standardised User Experience Questionnaire



Age: 23

Occupation: Commerce & Engineering Student

Prior Knowledge on Vaccines 4/10

Phase 1 – User Performs Task

Task: Sign up, login and search for a specific centre

• Able to complete the task: Yes

• Time taken to complete task: 45 seconds

• Number of clicks/taps taken to complete the task: 12 taps

• How many times the user diverged from the optimal flow of the task: 2 times

Total time spent outside optimal path: 23 seconds

Phase 2 - Semi Structured Interview

Question 1

Overall, how easy was it to navigate to your given goal?

Response (paraphrased)

It was pretty easy, all the buttons I needed to press stood out and had either icons or words that clearly let me know what they were for. What about the times you strayed from the optimal path? I think I just wasn't looking at the whole screen properly and I assumed some buttons would also be able to lead me to the goal. But if I slowed down and took my time I think I probably would have been able to process all the buttons and know which ones to press.

Question 2

What did you think of the application layout?

Response (paraphrased)

The application layout was good, It was similar to other apps I've used before so it was already a familiar set up and I was able to understand it pretty well. How did you know where to go from the homepage? Because my instructions were to search for a specific location, when I looked at the homepage and the tabs at the bottom, I knew it would have to be the maps tab because it relates to locations. After the login, I was a bit confused as to where I was because It was my first time using the app and I didn't know what the homepage looked like, but I think once users have used the app once or twice, they will recognise the homepage straightaway.

Question 3

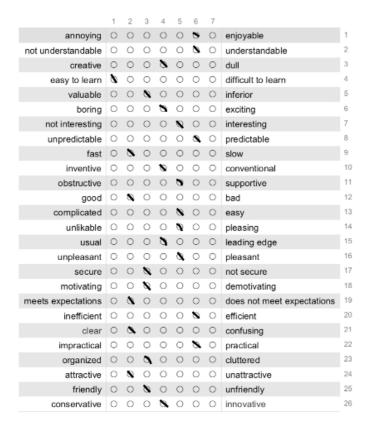
What did you think of the app aesthetically?

Response (paraphrased)

The app was really simple and clean which I think suits an app that is about vaccinations or the medical/healthcare theme in general. The blue colour theme was pretty consistent and everything was clear and easy to read. I noticed you tried to click on some of the blue text and realised they weren't clickable. Could you tell me your thought process on that? Well usually

when text is in that kind of blue colour it usually means there is a hyperlink or leads to something so I thought clicking the heading of the location would expand information on it but then I saw the arrow that actually expands to the information page I thought that made more sense. However, the blue text did confuse me a little.

Phase 3 - Standardised User Experience Questionnaire



Age: 24

Occupation: Employee

Prior Knowledge on vaccines: 5/10

Phase 1 - User Performs Tasks

Task: Log in and add a vaccine record

- Able to complete the task : Yes
- Time taken to complete task: 3 minutes
- Number of clicks/taps taken to complete the task: 18 clicks
- How many times the user diverged from the optimal flow of the task: 1
- How long until the user went back on the optimal flow of the task after diverging: 30 seconds

Phase 2 - Semi Structured Interview

Question 1:

Overall, what do you think about the aesthetics or the design of the interfaces?

Response (paraphrased):

I think the layout and the interfaces look good when put together, the color contrast makes the content clear and clean for me to read. *Do you have any preferred aspect of the interfaces?* Yes, especially the button and the font. The shadow of the button helps it stand out from the interface and makes the process easier for users to move forward. As for the font, the size is pretty similar so it is more comfortable for me to read the context.

Question 2:

Do you think it is easy to use while performing the task?

Response (paraphrased):

Definitely yes, the interfaces with neat and clear context help me go through the task. *I notice there was a distraction while performing the task, how would you describe that?* As for that distraction, I would recommend removing the tick for the records because that makes me feel confused and it seems redundant in these interfaces. That is the main reason why the distraction happened.

Question 3:

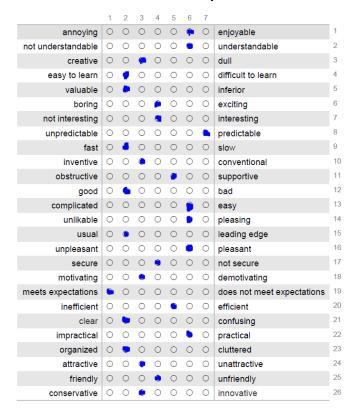
What are your initial expectations and whether the app meets all your expectations?

Response (paraphrased)

In my opinion, for this function it mainly covers my expectations since the aesthetics and the interactions work well together. The only point I am not satisfied with could be the grey font

color for some context because it makes the words not that clear to read. Overall, I think this process works well.

Phase 3 - Standardised User Experience Questionnaire



Age: 21

Occupation: IT Student

Prior Knowledge on vaccines: 7/10

Phase 1 - User Performs Tasks

Task: Signup and login to account and search for a specific centre

• Able to complete the task : Yes

• Time taken to complete task: 2 minutes

Number of clicks/taps taken to complete the task: 12 clicks

How many times the user diverged from the optimal flow of the task: 2

 How long until the user went back on the optimal flow of the task after diverging: 10 seconds

Phase 2 - Semi Structured Interview

Question 1:

Do you think it is easy to look for a specific location in this application?

Response (paraphrased):

Yes, it is easy to find the things that I am looking for as the search bar is clear and the details provided for a specific centre are neat for reading. However, the placeholder text in the search bar can be hard for some people to read and the size of the arrow for displaying the whole detail frame can be larger for tapping.

Question 2:

What are the features that you expect to be in the application, but it is not in the prototype?

Response (paraphrased):

Since this function is to provide convenience to users for finding specific centres and help users retrieve information of a location. There should be more buttons for interacting with the interfaces e.g. a close button can be added to the detail frame for the user to switch between the interfaces instead of one fixed interaction.

Question 3:

Overall, how would you describe the experience while performing this task?

Response (paraphrased)

Personally I like the layout of the application and the process of the function is clean and neat for users. As for the distraction, it is due to the size and the contrast of the context, which makes me stuck a little bit. Therefore, the suggestion I would give for the app is that try to make the content in the functionalities more clear and easy for as much as people to use, i.e. make the app more accessible.

Phase 3 - Standardised User Experience Questionnaire

	1	2	3	4	5	6	7		
annoying	0	0	0	0	•	0	0	enjoyable	1
not understandable	0	0	0	0	0	•	0	understandable	2
creative	0	0	0	0		0	0	dull	3
easy to learn	0		0	0	0	0	0	difficult to learn	4
valuable	0	0	0		0	0	0	inferior	5
boring	0	0	0		0	0	0	exciting	6
not interesting	0	0	0	0	0		0	interesting	7
unpredictable	0	0	0	0		0	0	predictable	8
fast	0		0	0	0	0	0	slow	9
inventive	0	0	0	0	0		0	conventional	10
obstructive	0	0	•	0	0	0	0	supportive	11
good	0		0	0	0	0	0	bad	12
complicated	0	0	0	0	0		0	easy	13
unlikable	0	0	0	0		0	0	pleasing	14
usual	0	0		0	0	0	0	leading edge	15
unpleasant	0	0	0	0	0		0	pleasant	16
secure	0	0	0		0	0	0	not secure	17
motivating	0		0	0	0	0	0	demotivating	18
meets expectations	0	0	•	0	0	0	0	does not meet expectations	19
inefficient	0	0	0	0	0	•	0	efficient	20
clear	0		0	0	0	0	0	confusing	21
impractical	0	0	0	0	0	0	•	practical	22
organized	0	<u></u>	0	0	0	0	0	cluttered	23
attractive	0	0		0	0	0	0	unattractive	24
friendly	0	0	0	•	0	0	0	unfriendly	25
conservative	0	0	0	0		0	0	innovative	26