

Below criteria¹ are based on [20 search usability guidelines](#) by Dr. David Travis of [Userfocus](#).

20 - Home Page

1. The items on the home page are clearly focused on users' key tasks ("featuritis" has been avoided).
2. The home page contains a search input box.
3. Product categories are provided and clearly visible on the homepage.
4. Useful content is presented on the home page or within one click of the home page.
5. The home page shows good examples of real site content.
6. Links on the home page begin with the most important keyword (e.g. "Sun holidays" not "Holidays in the sun").
7. There is a short list of items recently featured on the homepage, supplemented with a link to archival content.
8. Navigation areas on the home page are not over-formatted and users will not mistake them for adverts.
9. The value proposition is clearly stated on the home page (e.g. with a tagline or welcome blurb).
10. The home page contains meaningful graphics, not clip art or pictures of models.
11. Navigation choices are ordered in the most logical or task-oriented manner (with the less important corporate information at the bottom).
12. The title of the home page will provide good visibility in search engines like Google.
13. All corporate information is grouped in one distinct area (e.g. "About Us").
14. Users will understand the value proposition.
15. By just looking at the home page, the first time user will understand where to start.
16. The home page shows all the major options.
17. The home page of the site has a memorable URL.
18. The home page is professionally designed and will create a positive first impression.
19. The design of the home page will encourage people to explore the site.
20. The home page looks like a home page; pages lower in the site will not be confused with it.

44 - Task Orientation

1. The site is free from irrelevant, unnecessary and distracting information.
2. Excessive use of scripts, applets, movies, audio files, graphics and images has been avoided.
3. The site avoids unnecessary registration.
4. The critical path (e.g. purchase, subscription) is clear, with no distractions on route.
5. Information is presented in a simple, natural and logical order.
6. The number of screens required per task has been minimised.
7. The site requires minimal scrolling and clicking.
8. The site correctly anticipates and prompts for the user's probable next activity.
9. When graphs are shown, users have access to the actual data (e.g. numeric annotation on bar charts).

¹ <https://www.usabilitest.com/>

10. Activities allocated to the user or the computer take full advantage of the strengths of each (look for actions that can be done automatically by the site, e.g. postcode lookup).
11. Users can complete common tasks quickly.
12. Items can be compared easily when this is necessary for the task (e.g. product comparisons).
13. The task sequence parallels the user's work processes.
14. The site makes the user's work easier and quicker than without the system.
15. The most important and frequently used topics, features and functions are close to the centre of the page, not in the far left or right margins.
16. The user does not need to enter the same information more than once.
17. Important, frequently needed topics and tasks are close to the 'surface' of the web site.
18. Typing (e.g. during purchase) is kept to an absolute minimum, with accelerators ("one-click") for return users.
19. The path for any given task is a reasonable length (2-5 clicks).
20. When there are multiple steps in a task, the site displays all the steps that need to be completed and provides feedback on the user's current position in the workflow.
21. Price is always clearly displayed next to any product.
22. The site's privacy policy is easy to find, especially on pages that ask for personal information, and the policy is simple and clear.
23. Users of the site do not need to remember information from place to place.
24. The use of metaphors is easily understandable by the typical user.
25. Data formats follow appropriate cultural conventions (e.g. miles for UK).
26. Details of the software's internal workings are not exposed to the user.
27. The site caters for users with little prior experience of the web.
28. The site makes it easy for users to explore the site and try out different options before committing themselves.
29. A typical first-time visitor can do the most common tasks without assistance.
30. When they return to the site, users will remember how to carry out the key tasks.
31. The functionality of novel device controls is obvious.
32. On the basket page, there is a highly visible 'Proceed to checkout' button at the top and bottom of the page.
33. Important calls to action, like 'Add to basket', are highly visible.
34. Action buttons (such as "Submit") are always invoked by the user, not automatically invoked by the system when the last field is completed.
35. Command and action items are presented as buttons (not, for example, as hypertext links).
36. If the user is half-way through a transaction and quits, the user can later return to the site and continue from where he left off.
37. When a page presents a lot of information, the user can sort and filter the information.
38. If there is an image on a button or icon, it is relevant to the task.
39. The site prompts the user before automatically logging off the user, and the time out is appropriate.
40. Unwanted features (e.g. Flash animations) can be stopped or skipped.
41. The site is robust and all the key features work (i.e. there are no javascript exceptions, CGI errors or broken links).
42. The site supports novice and expert users by providing different levels of explanation (e.g. in help and error messages).
43. The site allows users to rename objects and actions in the interface (e.g. naming delivery addresses or accounts).

44. The site allows the user to customise operational time parameters (e.g. time until automatic logout).

29 - Navigation & Information Architecture

1. There is a convenient and obvious way to move between related pages and sections and it is easy to return to the home page.
2. The information that users are most likely to need is easy to navigate to from most pages.
3. Navigation choices are ordered in the most logical or task-oriented manner.
4. The navigation system is broad and shallow (many items on a menu) rather than deep (many menu levels).
5. The site structure is simple, with a clear conceptual model and no unnecessary levels.
6. The major sections of the site are available from every page (persistent navigation) and there are no dead ends.
7. Navigation tabs are located at the top of the page, and look like clickable versions of real-world tabs.
8. There is a site map that provides an overview of the site's content.
9. The site map is linked to from every page.
10. The site map provides a concise overview of the site, not a rehash of the main navigation or a list of every single topic.
11. Good navigational feedback is provided (e.g. showing where you are in the site).
12. Category labels accurately describe the information in the category.
13. Links and navigation labels contain the "trigger words" that users will look for to achieve their goal.
14. Terminology and conventions (such as link colours) are (approximately) consistent with general web usage.
15. Links look the same in the different sections of the site.
16. Product pages contain links to similar and complementary products to support cross-selling.
17. The terms used for navigation items and hypertext links are unambiguous and jargon-free.
18. Users can sort and filter catalogue pages (e.g. by listing in price order, or showing 'most popular').
19. There is a visible change when the mouse points at something clickable (excluding cursor changes).
20. Important content can be accessed from more than one link (different users may require different link labels).
21. Navigation-only pages (such as the home page) can be viewed without scrolling.
22. Hypertext links that invoke actions (e.g downloads, new windows) are clearly distinguished from hypertext links that load another page.
23. The site allows the user to control the pace and sequence of the interaction.
24. There are clearly marked exits on every page allowing the user to bale out of the current task without having to go through an extended dialog.
25. The site does not disable the browser's "Back" button and the "Back" button appears on the browser toolbar on every page.
26. Clicking the back button always takes the user back to the page the user came from.
27. A link to both the basket and checkout is clearly visible on every page.

28. If the site spawns new windows, these will not confuse the user (e.g. they are dialog-box sized and can be easily closed).
29. Menu instructions, prompts and messages appear on the same place on each screen.

23 - Forms & Data Entry

1. Fields in data entry screens contain default values when appropriate and show the structure of the data and the field length.
2. When a task involves source documents (such as a paper form), the interface is compatible with the characteristics of the source document.
3. The site automatically enters field formatting data (e.g. currency symbols, commas for 1000s, trailing or leading spaces). Users do not need to enter characters like \$ or %.
4. Field labels on forms clearly explain what entries are desired.
5. Text boxes on forms are the right length for the expected answer.
6. There is a clear distinction between "required" and "optional" fields on forms.
7. The same form is used for both logging in and registering (i.e. it's like Amazon).
8. Forms pre-warn the user if external information is needed for completion (e.g. a passport number).
9. Questions on forms are grouped logically, and each group has a heading.
10. Fields on forms contain hints, examples or model answers to demonstrate the expected input.
11. When field labels on forms take the form of questions, the questions are stated in clear, simple language.
12. Pull-down menus, radio buttons and check boxes are used in preference to text entry fields on forms (i.e. text entry fields are not overused).
13. With data entry screens, the cursor is placed where the input is needed.
14. Data formats are clearly indicated for input (e.g. dates) and output (e.g. units of values)..
15. Users can complete simple tasks by entering just essential information (with the system supplying the non-essential information by default).
16. Forms allow users to stay with a single interaction method for as long as possible (i.e. users do not need to make numerous shifts from keyboard to mouse to keyboard)..
17. The user can change default values in form fields.
18. Text entry fields indicate the amount and the format of data that needs to be entered.
19. Forms are validated before the form is submitted.
20. With data entry screens, the site carries out field-level checking and form-level checking at the appropriate time.
21. The site makes it easy to correct errors (e.g. when a form is incomplete, positioning the cursor at the location where correction is required).
22. There is consistency between data entry and data display.
23. Labels are close to the data entry fields (e.g. labels are right justified).

13 - Trust & Credibility

1. The content is up-to-date, authoritative and trustworthy.
2. The site contains third-party support (e.g. citations, testimonials) to verify the accuracy of information.

3. It is clear that there is a real organisation behind the site (e.g. there is a physical address or a photo of the office).
4. The company comprises acknowledged experts (look for credentials).
5. The site avoids advertisements, especially pop-ups.
6. Delivery costs are highlighted at the very beginning of checkout.
7. The site avoids marketing waffle.
8. Each page is clearly branded so that the user knows he is still in the same site.
9. It is easy to contact someone for assistance and a reply is received quickly.
10. The content is fresh: it is updated frequently and the site includes recent content.
11. The site is free of typographic errors and spelling mistakes.
12. The visual design complements the brand and any offline marketing messages.
13. There are real people behind the organisation and they are honest and trustworthy (look for bios).

23 - Writing & Content Quality

1. The site has compelling and unique content.
2. Text is concise, with no needless instructions or welcome notes.
3. Each content page begins with conclusions or implications and the text is written with an inverted pyramid style.
4. Pages use bulleted and numbered lists in preference to narrative text.
5. Lists are prefaced with a concise introduction (e.g. a word or phrase), helping users appreciate how the items are related to one another.
6. The most important items in a list are placed at the top.
7. Information is organised hierarchically, from the general to the specific, and the organisation is clear and logical.
8. Content has been specifically created for the web (web pages do not comprise repurposed material from print publications such as brochures).
9. Product pages contain the detail necessary to make a purchase, and users can zoom in on product images.
10. Hypertext has been appropriately used to structure content.
11. Sentences are written in the active voice.
12. Pages are quick to scan, with ample headings and sub-headings and short paragraphs.
13. The site uses maps, diagrams, graphs, flow charts and other visuals in preference to wordy blocks of text.
14. Each page is clearly labelled with a descriptive and useful title that makes sense as a bookmark.
15. Links and link titles are descriptive and predictive, and there are no "Click here!" links.
16. The site avoids cute, clever, or cryptic headings.
17. Link names match the title of destination pages, so users will know when they have reached the intended page.
18. Button labels and link labels start with action words.
19. Headings and sub-headings are short, straightforward and descriptive.
20. The words, phrases and concepts used will be familiar to the typical user.
21. Numbered lists start at "1" not at "0".
22. Acronyms and abbreviations are defined when first used.
23. Text links are long enough to be understood, but short enough to minimise wrapping (especially when used as a navigation list).

38 - Page Layout & Visual Design

1. The screen density is appropriate for the target users and their tasks.
2. The layout helps focus attention on what to do next.
3. On all pages, the most important information (such as frequently used topics, features and functions) is presented on the first screenful of information ("above the fold").
4. The site can be used without scrolling horizontally.
5. Things that are clickable (like buttons) are obviously pressable.
6. Items that aren't clickable do not have characteristics that suggest that they are.
7. The functionality of buttons and controls is obvious from their labels or from their design.
8. Clickable images include redundant text labels (i.e. there is no 'mystery meat' navigation).
9. Hypertext links are easy to identify without needing to 'minesweep' (e.g. underlined).
10. Fonts are used consistently.
11. The relationship between controls and their actions is obvious.
12. Icons and graphics are standard and/or intuitive (concrete and familiar).
13. There is a clear visual "starting point" to every page.
14. Each page on the site shares a consistent layout.
15. Pages on the site are formatted for printing, or there is a printer-friendly version.
16. Buttons and links show that they have been clicked.
17. GUI components (like radio buttons and check boxes) are used appropriately.
18. Fonts are readable.
19. The site avoids italicised text and uses underlining only for hypertext links.
20. There is a good balance between information density and use of white space.
21. The site is pleasant to look at.
22. Pages are free of "scroll stoppers" (headings or page elements that create the illusion that users have reached the top or bottom of a page when they have not).
23. The site avoids extensive use of upper case text.
24. The site has a consistent, clearly recognisable look and feel that will engage users.
25. Saturated blue is avoided for fine detail (e.g. text, thin lines and symbols).
26. Colour is used to structure and group items on the page.
27. Graphics will not be confused with banner ads.
28. Emboldening is used to emphasise important topic categories.
29. On content pages, line lengths are neither too short (<50 characters per line) nor too long (>100 characters per line) when viewed in a standard browser width window.
30. Pages have been designed to an underlying grid, with items and widgets aligned both horizontally and vertically.
31. Meaningful labels, effective background colours and appropriate use of borders and white space help users identify a set of items as a discrete functional block.
32. The colours work well together and complicated backgrounds are avoided.
33. Individual pages are free of clutter and irrelevant information.
34. Standard elements (such as page titles, site navigation, page navigation, privacy policy etc.) are easy to locate.
35. The organisation's logo is placed in the same location on every page, and clicking the logo returns the user to the most logical page (e.g. the home page).

36. Attention-attracting features (such as animation, bold colours and size differentials) are used sparingly and only where relevant.
37. Icons are visually and conceptually distinct yet still harmonious (clearly part of the same family).
38. Related information and functions are clustered together, and each group can be scanned in a single fixation (5-deg, about 4.4cm diameter circle on screen).

20 - Search

1. The default search is intuitive to configure (no Boolean operators).
2. The search results page shows the user what was searched for and it is easy to edit and resubmit the search.
3. Search results are clear, useful and ranked by relevance.
4. The search results page makes it clear how many results were retrieved, and the number of results per page can be configured by the user.
5. If no results are returned, the system offers ideas or options for improving the query based on identifiable problems with the user's input.
6. The search engine handles empty queries gracefully.
7. The most common queries (as reflected in the site log) produce useful results.
8. The search engine includes templates, examples or hints on how to use it effectively.
9. The site includes a more powerful search interface available to help users refine their searches (preferably named "revise search" or "refine search", not "advanced search").
10. The search results page does not show duplicate results (either perceived duplicates or actual duplicates).
11. The search box is long enough to handle common query lengths.
12. Searches cover the entire web site, not a portion of it.
13. If the site allows users to set up a complex search, these searches can be saved and executed on a regular basis (so users can keep up-to-date with dynamic content).
14. The search interface is located where users will expect to find it (top right of page).
15. The search box and its controls are clearly labelled (multiple search boxes can be confusing).
16. The site supports people who want to browse and people who want to search.
17. The scope of the search is made explicit on the search results page and users can restrict the scope (if relevant to the task).
18. The search results page displays useful meta-information, such as the size of the document, the date that the document was created and the file type (Word, pdf etc.).
19. The search engine provides automatic spell checking and looks for plurals and synonyms.
20. The search engine provides an option for similarity search ("more like this").

37 - Help, Feedback & Error Tolerance

1. The FAQ or on-line help provides step-by-step instructions to help users carry out the most important tasks.
2. It is easy to get help in the right form and at the right time.
3. Prompts are brief and unambiguous.
4. The user does not need to consult user manuals or other external information to use the site.

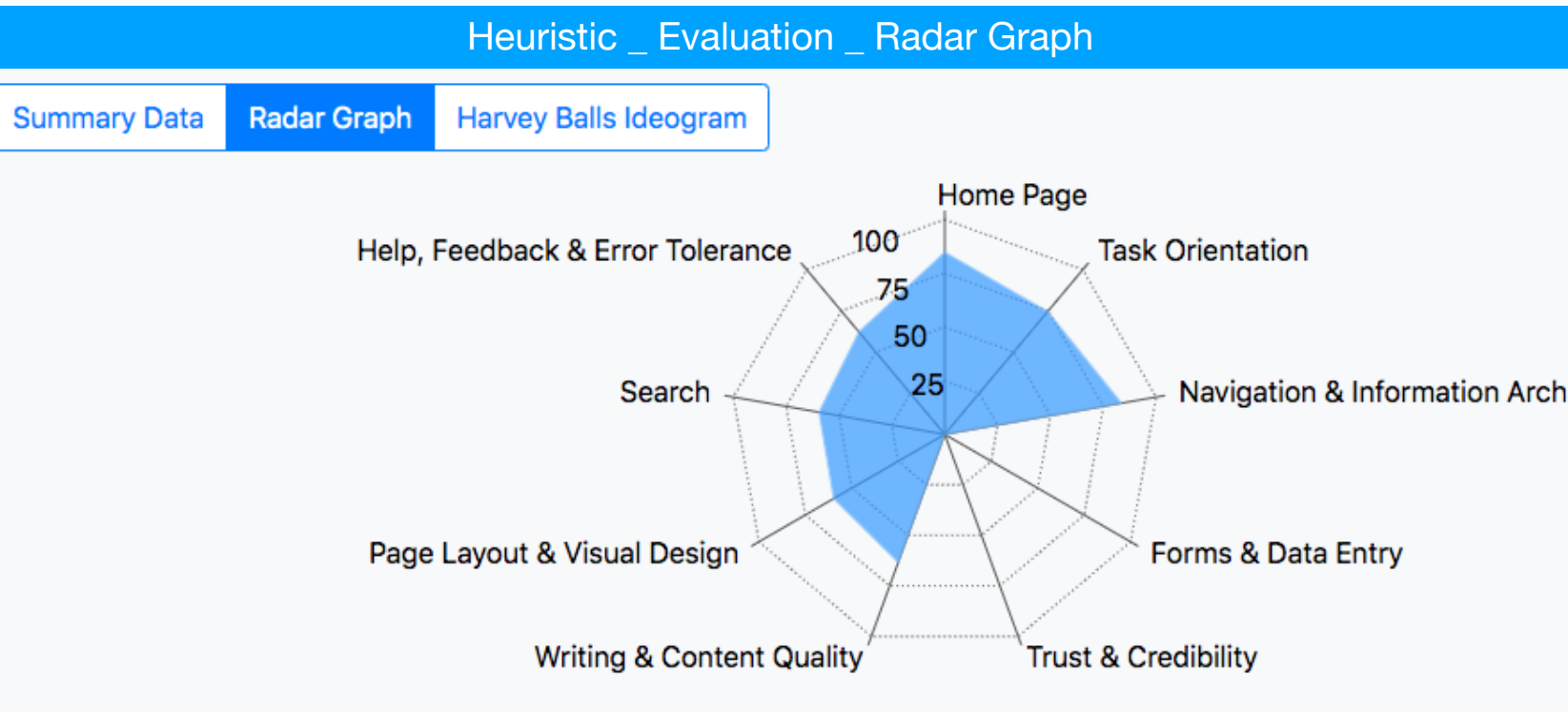
5. The site uses a customised 404 page, which includes tips on how to find the missing page and links to "Home" and Search.
6. The site provides good feedback (e.g. progress indicators or messages) when needed (e.g. during checkout).
7. Users are given help in choosing products.
8. User confirmation is required before carrying out potentially "dangerous" actions (e.g. deleting something).
9. Confirmation pages are clear.
10. Error messages contain clear instructions on what to do next.
11. Immediately prior to committing to the purchase, the site shows the user a clear summary page and this will not be confused with a purchase confirmation page.
12. When the user needs to choose between different options (such as in a dialog box), the options are obvious.
13. The site keeps users informed about unavoidable delays in the site's response time (e.g. when authorising a credit card transaction).
14. Error messages are written in a non-derisory tone and do not blame the user for the error.
15. Pages load quickly (5 seconds or less).
16. The site provides immediate feedback on user input or actions.
17. The user is warned about large, slow-loading pages (e.g. "Please wait..."), and the most important information appears first.
18. Where tooltips are used, they provide useful additional help and do not simply duplicate text in the icon, link or field label.
19. When giving instructions, pages tell users what to do rather than what to avoid doing.
20. The site shows users how to do common tasks where appropriate (e.g. with demonstrations of the site's functionality).
21. The site provides feedback (e.g. "Did you know?") that helps the user learn how to use the site.
22. The site provides context sensitive help.
23. Help is clear and direct and simply expressed in plain English, free from jargon and buzzwords.
24. The site provides clear feedback when a task has been completed successfully.
25. Important instructions remain on the screen while needed, and there are no hasty time outs requiring the user to write down information.
26. Fitts' Law is followed (the distance between controls and the size of the controls is appropriate, with size proportional to distance).
27. There is sufficient space between targets to prevent the user from hitting multiple or incorrect targets.
28. There is a line space of at least 2 pixels between clickable items.
29. The site makes it obvious when and where an error has occurred (e.g. when a form is incomplete, highlighting the missing fields).
30. The site uses appropriate selection methods (e.g. pull-down menus) as an alternative to typing.
31. The site does a good job of preventing the user from making errors.
32. The site prompts the user before correcting erroneous input (e.g. Google's "Did you mean...").
33. The site ensures that work is not lost (either by the user or site error).
34. Error messages are written in plain language with sufficient explanation of the problem.
35. When relevant, the user can defer fixing errors until later in the task.

36. The site can provide more detail about error messages if required.
37. It is easy to "undo" (or "cancel") and "redo" actions.

1. Heuristic Evaluation (3 Participants; 100 Questions Each (See the file: *Heuristic_Evaluation_Criteria.pdf*))

Heuristic _ Participants							
	Date	Participant	Agent	IP Address	Completion	Inclusiuon	Comments
1	Thu, May 21, 2020, 8:09 am	Contact: 105045195@qq.com (Lisa)	Mozilla/5.0 (Macintosh; Intel Mac OS X 10_13_3) AppleWebKit/604.5.6 (KHTML, iike Gecko) Version/11.0.3 Safari/604.5.6	82.8.19.11	100%	Included	
2	Thu, May 21, 2020, 8:22 am	Contact: yi66ang@gmail.com (Zeyi Wan)	Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, iike Gecko) Chrome/81.0.4044.138 Safari/537.36	5.151.27.168	100%	Included	
3	Thu, May 21, 2020, 8:38 am	Unregistered user	Mozilla/5.0 (Macintosh; Intel Mac OS X 10_13_2) AppleWebKit/537.36 (KHTML, iike Gecko) Chrome/81.0.4044.122 Safari/537.36	5.151.27.168	100%	Included	

Heuristic _ Evaluation _ Summary Data				
Summary DataRadar GraphHarvey Balls Ideogram XLSCSV				
Category	Score	Questions	Answers	Percentage
Home Page	34	60	49	85 %
Task Orientation	57	132	116	75 %
Navigation & Information Architecture	51	87	76	84 %
Forms & Data Entry	-1	85	1	0 %
Trust & Credibility	0	48	0	N/A
Writing & Content Quality	15	72	56	63 %
Page Layout & Visual Design	21	114	108	60 %
Search	10	60	53	59 %
Help, Feedback & Error Tolerance	20	114	82	62 %



2. SUS Test (4 Participants; 10 Questions Each)

Questionnaire preview

1. I think that I would like to use WISA-Hub frequently.

2. I found WISA-Hub unnecessarily complex.

3. I thought WISA-Hub was easy to use.

4. I think that I would need the support of a technical person to be able to use WISA-Hub.

5. I found the various functions in WISA-Hub were well integrated.

6. I thought there was too much inconsistency in WISA-Hub.

7. I would imagine that most people would learn to use WISA-Hub very quickly.

8. I found WISA-Hub very cumbersome (awkward) to use.

9. I felt very confident using WISA-Hub.

10. I needed to learn a lot of things before I could get going with WISA-Hub.

SUS Tests - Participants							
heuristic_participants (1)							
	Date	Participant	Agent	IP Address	Completion	Inclusiuon	Comments
1	Thu, May 21, 2020, 8:16 am	Contact: 105045195@qq.com (Lisa)	Mozilla/5.0 (Macintosh; Intel Mac OS X 10_13_3) AppleWebKit/604.5.6 (KHTML, iike Gecko) Version/11.0.3 Safari/604.5.6	82.8.19.11	100%	Included	
2	Thu, May 21, 2020, 8:25 am	Contact: antoine.des@yahoo.fr (antoine)	Mozilla/5.0 (Mobile; Windows Phone 8.1; Android 4.0; ARM; Trident/7.0; Touch; rv:11.0; IEMobile/11.0; Microsoft; RM-1113) like iPhone OS 7_0_3 Mac OS X AppleWebKit/537 (KHTML, iike Gecko) Mobile Safari/537	217.69.11.45	100%	Included	
3	Thu, May 21, 2020, 8:35 am	Contact: yi66ang@gmail.com (Zeyi Wan)	Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, iike Gecko) Chrome/81.0.4044.138 Safari/537.36	5.151.27.168	100%	Included	
4	Thu, May 21, 2020, 9:04 am	Unregistered user	Mozilla/5.0 (Linux; Android 9; SM-A105FN Build/PPR1.180610.011; vv) AppleWebKit/537.36 (KHTML, iike Gecko) Version/4.0 Chrome/78.0.3904.62 XWEB/2258 MMWEBSDK/200301 Mobile Safari/537.36 MMWEBID/670 M	5.151.27.168	100%	Included	

SUS Test Results - Summary												
SummaryData												
GRADE ⓘ 13% percentile		PARTICIPANTS ⓘ complete responses: 4		SUS score:		50	ⓘ					
				Learnability:		43.8	ⓘ					
				Usability:		51.6	ⓘ					
				Standard deviation:		28.5	ⓘ					
				Cronbach's alpha:		0.946	ⓘ					

SUS Test Results - Data												
SummaryData XLSCSV												
Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	SUS	Usability	Learnability
4	4	5	3	4	2	3	2	4	3	65.0	68.8	50.0
3	2	4	2	4	1	4	1	5	1	82.5	81.3	87.5
3	3	2	4	3	5	2	4	2	4	30.0	31.3	25.0
4	4	2	4	3	4	1	5	1	5	22.5	25.0	12.5