portsmouth.gov.uk usability study

Part 1. Study design

1.1. Usability Goals

·   Is finding specific information confusing/difficult or straightforward/easy?

·   Can the website offer high user satisfaction?

·   Can users find information efficiently on the website?

1.3. User Profiles

The user profiles are tailored to the geographic users of the website. As the website is Local Authority the users will usually be residents of the area. By using geographic profiles it helped tailor experiences to meet user needs effectively.

Another representation covered by the user profile is students. The reason for using students is that they will normally have a working knowledge of using websites and libraries. I will select a variety of students from different courses.

Age, Gender, occupation etc., whilst important, do not have a great deal of importance with the usability goals. Whilst disability is always important with regards to usability, it is not a chosen goal for this study and will therefore not be covered.

To finalise I will be performing my study on 10 students who go to Portsmouth university across different courses.

The only information stored on my study subjects will be: screen recordings of them completing scenarios, the time taken for each scenario, their answers to the scenarios, their questionnaire answers.

1.2. Methodology

Usability goal: Is finding specific information confusing/difficult or straightforward/easy?

This is the primary goal of my study as finding information is the primary purpose of the website. All of my scenarios will require the subject to find information.

Usability concept: Effectiveness

Metric: Users' answers to scenarios will each be a metric, their correctness represents if users can successfully find information.

Data: As users complete scenarios they will fill in the answer form, for each scenario's answer I will compare it to the correct answer.

Correct answers to scenarios from portsmouth.gov.uk may vary between subjects so the correct answers for each subject will be determined by the information on the website on the date and time that the study is performed.

Metric: Notes of recording of subjects' experience for each scenario will be considered a metric. I will be making notes of steps the user makes that are incorrect or show signs that the user is struggling. I will base these notes on screen recordings of the user performing scenarios.

Data: A screen recording will be taken of the subject completing the scenarios. I will split this recording into segments for each scenario. The recordings will start straight away for the first scenario or when the user reaches the home screen after completing the previous scenario, for following scenarios. The recordings will be cut when the user finds/starts inputting their answer to the scenario. I will watch the recordings and make notes of anything I see that could be insightful.

There are multiple ways users can successfully perform some or all of the scenarios so mapping out the correct steps to compare to isn't really an option.

If users are making mistakes, long pauses or actions that aren't helping them achieve the scenario they are on, this would indicate that the website isn't effective.

Other concepts

While analysing the recordings, if any other usability concepts or heuristics come up affecting the usability goal, I will report on this. For example if/when subjects make mistakes in the screen recordings fault tolerance could be assessed.

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Usability goal: Can the website offer high user satisfaction?

Usability concept: User satisfaction

Metric: Each question in the questionnaire is a metric based on the users opinion of the website. The questionnaire can be found below, each question measures a different aspect of the users opinion and combined forms users satisfaction.

Data: After completing the scenarios subjects will be given a short questionnaire. This questionnaire contains mostly multiple choice questions covering different aspects of their experience. The results of these questions can be used to determine how much they did or didn't like particular aspects.

There will also be 2 short answer questions that allow subjects to add any insights they have.

I chose to measure this goal with a questionnaire as that way the user can give their opinion on different aspects of the website. The questions will have mostly multiple choice questions so users can quickly express their opinions on different aspects of the website.

Usability goal: Can users find information efficiently on the website?

Usability concept: Efficiency

Metric: Time taken to complete each individual scenario will be recorded. These times will be compared to my target time and negative or positive differences will represent efficiency or inefficiency, this value for each task will be my metric.

Data: As I am screen recording the user completing scenarios I will split it into sections for each scenario as previously mentioned. These times will be compared to my target time and negative or positive differences will represent efficiency or inefficiency.

To get my target time I performed tasks similar to my scenarios on southampton.gov.uk (Southampton City Council, 2025) and bristol.gov.uk (Bristol City Council, 2025). All tasks took me less than 1 minute. From this I determined that my scenarios should take on average around 1 minute 30 seconds for users who are new to gov.uk websites. 1 minute 30 seconds is my target time.

1.4 Procedure

First I will show subjects my participant information sheet (see Appendix C: Participant information sheet) and see if they will sign my consent form (see Appendix D: Consent form).

Then I will get my subjects to complete my scenarios(see Appendix A: scenarios)

Screen recording will be started before the subject begins the first scenario using the built in windows screen recording feature. This recording will be manually split into sections to analyse each scenario separately, starting from when the subject reaches home after completing a scenario(or straight away for the first scenario) and ending when the subject finds/starts entering their answer.

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I will be recording the time taken to complete each scenario and compare this to my researched target time of 1 minute 30 seconds for each scenario.

I will be with subjects when performing study. I will ensure the environment for the study is quiet without distractions such as tv and music. I will ask subjects to not use their phone during the study. All studies will be performed on my personal laptop.

Subjects will be given my computer with portsmouth.gov.uk open on the home page. They will have another google document open to fill in along with a paper copy to look at while they complete the scenarios. They will be told in person to fill in the digital version. The correctness and presence of their answers will be analysed. I will also go through the scenarios with them before the study begins to ensure they understand what they need to do.

The correct scenario answer will be based on the information on portsmouth.gov.uk at the time of the study for each subject. Users' answers' correctness will be determined by whether it matches with correct answers.

I will not offer any guidance or speak to the subject until they have finished the scenarios. If a subject can't complete a scenario this will be recorded.

After completing the form subjects will be given a short questionnaire (see Appendix B: questionnaire) to measure subject satisfaction. If subjects have questions about the questions I can answer them then and there during the questionnaire.

After I am done with the subject I will watch the recordings and make detailed notes on what I see/the user's steps.

I will analyse if every step from my notes helps the subject to achieve the corresponding scenario.

Equipment: My computer with relevant tabs open and screen recording, paper study invite, paper scenario form, paper questionnaire.

Results being recorded: Time per scenario, scenario answer correctness and if answers are present, places subject 'struggles' in recordings, questionnaire answers.

I will complete my study on 10 subjects.

Part 2. Results and implications

2.1. Data analysis

Usability concept: Effectiveness

metric : scenario answers

These tables show the subject's answers to scenarios (as raw data). I colour coded the table.

Note- no answer means an answer doesn't answer the scenarios meaningfully (text that doesn't include answer).

Note- participant number 9 completed 4/5 scenarios correctly but didn't type the answers. Those 4 scenarios will be considered correct.
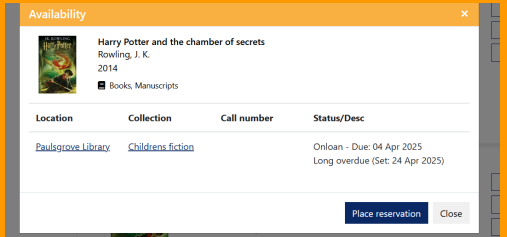
wrong method wrong answer

Partially correct method wrong answer

No answer

Correct

	Subject 1	Subject 2
Scenario 1	Not specifically, I cannot unfortunately ● ouncillor Dave Ashmore ● Fratton Liberal Democrat Cabinet Member for Environmental Services ● ● Councillor Stuart Brown ● Fratton Liberal Democrat	**Councillor Charlotte Gerada** **Party** Labour Elected until: 04/05/2028 **Contact** Email: Cllr.Charlotte.Gerada@portsmouthcc.gov.uk Telephone: 023 9283 4936 (Office) Telephone: 07795 - 301058

	 ● **Councillor Tom Coles** ● Fratton Labour	
Scenario 2	Yes I can **Harry Potter and the Chamber of Secrets [electronic resource]** Rowling, J.K. 2015	
Scenario 3	Yes I can Rubbish - next 10 collection dates Wednesday 7 May 2025 Wednesday 14 May 2025 Wednesday 21 May 2025 Wednesday 28 May 2025 Wednesday 4 June 2025	Answer: Wednesday 7 May 2025 Wednesday 14 May 2025 Wednesday 21 May 2025 Wednesday 28 May 2025 Wednesday 4 June 2025 Wednesday 11 June 2025 Wednesday 18 June 2025 Wednesday 25 June 2025 Wednesday 2 July 2025

	Wednesday 11 June 2025 Wednesday 18 June 2025 Wednesday 25 June 2025 Wednesday 2 July 2025 Wednesday 9 July 2025	Wednesday 9 July 2025
Scenario 4	https://southseacastle.co.uk/ Yes I could but it was difficult	https://southseacastle.co.uk/
Scenario 5	Yes I could 1927 – Frank J Privett	1927 – Frank J Privett

	Subject 3	Subject 4
Scenario 1	Councillor Charlotte Gerada	suzy horton
Scenario 2	Yes, it is long overdue	1 copy available
Scenario 3	Yes, every 10 days. Wednesday 7 May 2025 is the next date	Answer: rubbish bins collection on wednesday
Scenario 4	No	https://www.visitportsmouth.co.uk/things-to-do/southsea-castle-p221301
Scenario 5	Yes it is Frank J Privett	frank j. Privett

	Subject 5	Subject 6
Scenario 1	George Fielding	George Fielding
Scenario 2	1 copy available	1 copy
Scenario 3	Wednesday 7 May 2025	7 may 2025

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Scenario 4	https://southseacastle.co.uk/	https://southseacastle.co.uk/
Scenario 5	1927 – Frank J Privett	Henry Ford

	Subject 7	Subject 8
Scenario 1	councillor George Fielding	charlotte garbrina
Scenario 2	5 books available	6421444
Scenario 3	Wednesday 7 May 2025 Wednesday 14 May 2025 Wednesday 21 May 2025 Wednesday 28 May 2025 Wednesday 4 June 2025 Wednesday 11 June 2025 Wednesday 18 June 2025 Wednesday 25 June 2025 Wednesday 2 July 2025 Wednesday 9 July 2025 (Next 10 Collection Dates)	Answer: every week monday and fortnight following Wednesday 7 May 2025 Wednesday 14 May 2025 Wednesday 21 May 2025 Wednesday 28 May 2025 Wednesday 4 June 2025 Wednesday 11 June 2025 Wednesday 18 June 2025 Wednesday 25 June 2025 Wednesday 2 July 2025 Wednesday 9 July 2025 **Recycling - next 10 collection dates** Wednesday 14 May 2025 Wednesday 28 May 2025 Wednesday 11 June 2025 Wednesday 25 June 2025

		Wednesday 9 July 2025 Wednesday 23 July 2025 Wednesday 6 August 2025 Wednesday 20 August 2025 Wednesday 3 September 2025 Wednesday 17 September 2025
Scenario 4	https://southseacastle.co.uk/	southseacastle.co.u
Scenario 5	1927 – Frank J Privett	Frank j privet

	Subject 9	Subject 10
Scenario 1	Yes I found one but it was relatively difficult to locate. This was due to the UI not being clear in terms of language and options. Furthermore, the option asked me to log in for some reason when clicking on a particular road when searching for a counsellor. This task took 5 minutes due to inefficiency with the UI.	I can't find it
Scenario 2	Yes, I found the book, UI is dreadful. Took 3 minutes, why should i have 2 options to search for one resource. Bit confusing	couldn't find anything related of what i searched for
Scenario 3	Yes that one was pretty easy but the UI is not colourful and too formal which meant reading the actual resource was confusing. This took about 1 minute 30s.	yes i found out when the Rubbish and recycling can be collected at any time between 6am and 4pm. Make sure it's put out before 6am, or after 7pm the night before so as not to miss your collection. Not sure if this in portsmouth or its the same everywhere
Scenario 4	Took 20 seconds. But because I already know that the UI is bad, i had to actually engage my brain a bit harder.	no i couldn't find it jus found roads called castle road but didnt find what i searched for
Scenario 5	2 minutes to find but felt like a maze because the search bar doesnt work. The guy that made the website should be fired immediately.	1927 – Frank J Privett yes i found it looked the first date and got the name manually from the first date

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Summary of scenario answer correctness with same colour coding (no answers present so it's easier to see all the data together).

Subject number	1	2	3	4	5	6	7	8	9	10
Scenario 1	🟥	🟩	🟩	🟩	🟩	🟩	🟩	🟩	🟩	🟨
Scenario 2	🟧	🟧	🟩	🟧	🟧	🟧	🟧	🟧	🟧	🟨
Scenario 3	🟩	🟩	🟩	🟩	🟩	🟩	🟩	🟩	🟩	🟧
Scenario 4	🟩	🟩	🟨	🟩	🟩	🟩	🟩	🟩	🟩	🟨
Scenario 5	🟩	🟩	🟩	🟩	🟩	🟥	🟩	🟩	🟩	🟩

Statistics

Over the 50 scenarios (10 subjects completing 5 scenarios):

15/50 scenarios where completed incorrectly or not at all

Scenario 1: 2/10 subjects completed incorrectly or not at all

Scenario 2: 9/10 subjects completed incorrectly or not at all

Scenario 3: 1/10 subject completed incorrectly or not at all

Scenario 4: 2/10 subjects completed incorrectly or not at all

Scenario 5: 1/10 subject completed incorrectly or not at all

Every scenario was completed correctly at least once

No scenarios were completed correctly by all subjects

No subjects completed every scenario correctly

Usability concept: User satisfaction

metric : scenario answers questionnaire responses

Subject questionnaire answers are shown in the table below. In brackets after the subject's answer I have an abbreviation of one of: strongly negative(sn), negative(n), neutral(ne), positive(p) or strongly positive(sp). This represents the positivity of the subject's opinion on a given question. I colour coded the table.

strongly negative(sn)-red

negative(n)-light red

neutral(ne)-blank

positive(p)-light green

strongly positive(sp)-green

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	Subject 1	Subject 2	Subject 3	Subject 4	Subject 5
Question 1 (overall experience)	Disagree (n)	Agree (p)	Agree (p)	Agree (p)	Agree (p)
Question 2 (easy to use)	Disagree (n)	Neutral (ne)	Agree (p)	Strongly Agree (sp)	Neutral (ne)
Question 3 (frustrating)	Agree (n)	Neutral (ne)	Disagree (p)	Strongly Disagree (sp)	Disagree (p)
Question 4 (difficult/ find information)	Neutral (ne)	Agree (n)	Strongly Disagree (sp)	Disagree (p)	Agree (n)
Question 5 (difficult/ navigate back)	Strongly Disagree (sp)	Disagree (p)	Strongly Disagree (sp)	Disagree (p)	Agree (n)
Question 6 (confident)	Disagree (n)	Disagree (n)	Agree (p)	Strongly Agree (sp)	Neutral (ne)
Question 7 (use again)	Strongly Disagree (sn)	Agree (p)	Disagree (n)	Agree (p)	Strongly Disagree (sn)
Question 8 (design change)	Disagree (p)	Strongly Agree (sn)	Disagree (p)	Neutral (ne)	Agree (n)
Question 9 (appearance)	Good (p)	Bad (n)	Good (p)	Average (ne)	Good (p)
Question 10 (organization)	Average (ne)	Good (p)	Good (p)	Very good (sp)	Very good (sp)

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	Question 11 answers (problems)
Subject 1	It was very hard trying to navigate through website if I did not use search engine. (n)
Subject 2	-
Subject 3	Struggled to navigate one of the questions (Q4) (n)
Subject 4	-
Subject 5	Returning to the home page. (n)

	Question 12 answers (additional feedback)
Subject 1	-
Subject 2	-
Subject 3	No, easy to use (sp)
Subject 4	I would like it to be more colourful and less boring (n)
Subject 5	It could've have been easier to find certain things more (n)

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	Subject 6	Subject 7	Subject 8	Subject 9	Subject 10
Question 1 (overall experience)	Disagree (n)	Agree (p)	Agree (p)	Strongly Disagree (sn)	Disagree (n)
Question 2 (easy to use)	Disagree (n)	Strongly Agree (sp)	Disagree (n)	Strongly Disagree (sn)	Disagree (n)
Question 3 (frustrating)	Strongly Agree (sn)	Strongly Disagree (sp)	Neutral (ne)	Strongly Disagree (sp)	Agree (n)
Question 4 (difficult/ find information)	Agree (n)	Disagree (p)	Agree (n)	Neutral (ne)	Agree (n)
Question 5 (difficult/ navigate back)	Neutral (ne)	Strongly Agree (sn)	Strongly Disagree (sp)	Strongly Disagree (sp)	Disagree (p)
Question 6 (confident)	Strongly Agree (sp)	Agree (p)	Neutral (ne)	Agree (p)	Strongly Disagree (sn)
Question 7 (use again)	Disagree (n)	Strongly Agree (sn)	Disagree (n)	Strongly Disagree (sn)	Neutral (ne)
Question 8 (design change)	Strongly Agree (sn)	Disagree (p)	Strongly Agree (sn)	Strongly Agree (sn)	Strongly Agree (sn)
Question 9 (appearance)	Good (p)	Very good (sp)	Bad (n)	Very bad (sn)	Bad (n)
Question 10 (organization)	Very bad (sn)	Very good (sp)	Bad (n)	Very bad (sn)	Average (ne)

	Question 11 answers (problems)
Subject 6	Nothing was where it appeared it should be (n)
Subject 7	Relied on the search bar more than i needed to (n)
Subject 8	-
Subject 9	The terms are unclear and search doesn't work (n)
Subject 10	I couldn't do everything threw the search bar because it is so much easier to search threw the search bar (n)

	Question 12 answers (additional feedback)
Subject 6	Burn it with fire (sn)
Subject 7	-
Subject 8	-
Subject 9	Use typescript and tailwind. The UI is awful (sn)
Subject 10	sure, the website can be more organised aswell they can try to retire or make the search bar more intelligent. (n)

Statistics

-Out of the 100 answers to multiple choice questions(10 questions completed by 10 subjects) 41 had negative or strongly negative responses.

-Out of the negative responses 25 were negative and 16 were strongly negative.

-Out of the 100 answers to multiple choice questions 45 had positive or strongly positive responses.

-Out of the positive responses 28 were positive and 17 were strongly positive.

-Out of the 100 answers to multiple choice questions 14 had neutral responses.

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-Question 1 has 4 negative and strongly negative responses.

-Question 2 has 5 negative and strongly negative responses.

-Question 3 has 5 negative and strongly negative responses.

-Question 4 has 5 negative and strongly negative responses.

-Question 5 has 2 negative and strongly negative responses.

-Question 6 has 3 negative and strongly negative responses.

-Question 7 has 6 negative and strongly negative responses.

-Question 8 has 6 negative and strongly negative responses.

-Question 9 has 4 negative and strongly negative responses.

-Question 10 has 3 negative and strongly negative responses.

-Every question has between 3 and 7 positive and strongly positive answers.

-Every question has between 2 and 6 negative and strongly negative responses.

-Apart from subject 4 all subjects had at least 1 negative and/or strongly negative response.

-All subjects had at least 2 positive and/or strongly positive responses.

-In question 11 7/10 subjects reported they encountered a problem. All problems were related to search and/or navigation.

-In question 12 6/10 subjects added additional feedback. 2 answers were strongly negative, 3 answers were negative and 1 answer was positive.

Usability concept: Efficiency

Metric: scenario times taken

Times taken for each scenario (regardless of answer being right or wrong) by each subject are shown in the tables below.

Tables are colour coded. If time taken by subject on any given scenario is longer than target time (90 seconds) that box will be coloured red, and if it is quicker the box will be coloured green.

If an answer isn't correct it will be coloured orange, or If an answer isn't present the box will be coloured yellow and in these cases the time represents time spent trying to find the correct answer.

Result format: (minutes taken):(seconds taken)

	Subject 1	Subject 2	Subject 3	Subject 4	Subject 5
Scenario 1	2:52	5:55	1:32	1:31	1:51
Scenario 2	4:46	3:58	1:30	1:25	2:00
Scenario 3	1:54	1:25	0:43	1:07	1:37
Scenario 4	3:51	3:33	1:54	1:15	1:43
Scenario 5	0:23	2:27	1:51	0:36	2:05

	Subject 6	Subject 7	Subject 8	Subject 9	Subject 10
Scenario 1	2:32	2:45	4:03	4:48	2:41
Scenario 2	1:17	2:48	2:54	2:51	2:35
Scenario 3	1:04	2:46	1:30	0:42	1:30
Scenario 4	0:34	3:09	4:00	1:48	1:58
Scenario 5	2:18	2:53	2:02	1:51	0:44

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Statistics

Over the 35 scenarios completed correctly by the 10 subjects:

12/35 scenarios were completed within the target time

Scenario 1: 0/8 successful attempts were completed within the target time

Scenario 2: 1/1 successful attempt was completed within the target time

Scenario 3: 6/9 successful attempts were completed within the target time

Scenario 4: 2/8 successful attempts were completed within the target time

Scenario 5: 3/9 successful attempts were completed within the target time

Ranges:

The range of all times taken to find the correct answer is 5 minutes 32 seconds (with highest time 5 minutes 55 seconds and lowest time 23 seconds).

The range of times taken to find the correct answer in scenario 1 is 4 minutes 24 seconds (with highest time 5 minutes 55 seconds and lowest time 1 minute 31 seconds).

Correct answer only present once on scenario 2 so no range.

The range of times taken to find the correct answer in scenario 3 is 2 minutes 4 seconds (with highest time 2 minutes 46 seconds and lowest time 42 seconds).

The range of times taken to find the correct answer in scenario 4 is 3 minutes 26 seconds (with highest time 4 minutes and lowest time 34 seconds).

The range of times taken to find the correct answer in scenario 5 is 2 minutes 9 seconds (with highest time 2 minutes 53 seconds and lowest time 44 seconds).

Means:

The mean of all times taken to find the correct answer is 2 minutes 4 seconds.

The Mean of times taken to find the correct answer in scenario 1 is 3 minutes 7.125 seconds.

Correct answer only present once on scenario 2 so no range.

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The Mean of times taken to find the correct answer in scenario 3 is 1 minute 25.333 seconds.

The Mean of times taken to find the correct answer in scenario 4 is 2 minutes 29.125 seconds.

The Mean of times taken to find the correct answer in scenario 5 is 1 minute 39.111 seconds.

Slowest time without finding the correct answer was 4 minutes and 46 seconds across scenarios on scenario 2.

2.2. Results interpretation and implications.

The effectiveness metrics (scenario answers) reveals challenges in subjects' ability to find specific information on the Portsmouth.gov.uk website. With 15 out of 50 scenarios (30%) completed incorrectly or not at all, the website demonstrates substantial effectiveness issues. Scenario 2, checking the availability of "Harry Potter and the Chamber of Secrets" at Southsea Library was particularly problematic with 9/10 (90%) subjects failing to complete it correctly. In contrast, Scenario 3 (finding bin collection dates) had the highest success rate with only 1 (10%) participant failing, indicating this function is relatively well-implemented.

Every scenario was completed correctly at least once proving these scenarios are all technically possible. Every scenario also failed at least once showing inconsistency in successful scenario completion. Every subject failed at least 1 scenario indicating effectiveness issues affecting all subjects regardless of their abilities. The inconsistent success rates point to navigation and findability problems.

To address the usability goal "Is finding specific information confusing/difficult or straightforward/easy", this metric shows finding information on the website is confusing and difficult due to the high fail rates mentioned above.

The user satisfaction metrics (questionnaire answers) reveal mixed feelings about the Portsmouth.gov.uk website, with a nearly even split between positive and negative responses. This divide suggests inconsistent scenario experiences across different aspects of the website. All ten questions received between 2-6 negative responses out of 10 subjects. This indicates widespread usability concerns instead of issues with specific features.

The short answer responses reinforced these findings, with 7 out of 10 participants reporting problems specifically related to search and navigation. Comments like "Burn it with fire" and "The UI is awful" show significant scenario dissatisfaction. These results strongly indicate that the website fails to meet the goal of high scenario satisfaction, with scenario experiences being notably inconsistent. It seems from user feedback the biggest issues are related to search functionality and complex navigation paths. To address the usability goal "Can the website offer high user satisfaction?", this metric shows the website can't offer high user satisfaction due to reasons mentioned above.

The efficiency metrics(scenario times taken) highlight significant timing issues, with only 12 out of 35 correctly completed scenarios (34%) achieved within the target time of 90 seconds.

Scenario 1 (finding local councillors) was particularly time-consuming, with none of the 8 successful attempts completed within the target time and mean completion time of 3 minutes 7 seconds (more than twice the target time). In contrast, Scenario 3 (finding bin collection dates) was the most efficient with 6/9 successful attempts within the target time and a mean time of 1 minute 25 seconds.

The wide time range across scenarios of 5 minutes 32 seconds (from 23 seconds to 5 minutes 55 seconds) further demonstrates that some scenarios are relatively straightforward while others are excessively time-consuming, creating an unpredictable user experience. The overall mean completion time was 2 minutes 4 seconds exceeding the target time by 34 seconds. This indicates that efficiency problems are present across the whole website, not just isolated issues with particular features.

These efficiency findings align with user feedback about navigation difficulties and search problems. The significant time investment required for basic information retrieval tasks would likely impact real world usage, potentially causing users to seek alternative information sources or contact the council through more resource intensive channels like phone. To address the usability goal "Can users find information efficiently on the website?", this metric shows subjects can't find information efficiently on the website due to the reasons mentioned above.

In conclusion the website failed all 3 usability goals. This study reveals significant challenges with the Portsmouth.gov.uk website across all three key usability metrics. The 30% scenario failure rate, combined with only 34% of successful scenarios being completed within the target time and 41% negative responses, clearly demonstrates major usability issues. The current iteration presents substantial barriers to information access for users across all technical capabilities. My study suggests the main reason for these dissatisfactory results is the poor search functionality and overall complex navigation. While the bin collection feature demonstrates that good usability is achievable, the inconsistent user experience, particularly with the problematic library catalogue, suggests information architecture issues. These findings highlight the urgent need for a user centered redesign that prioritises clarity, efficiency, and consistency.

Part 3. Limitations and recommendations

Limitations

Due to the constraint of time I wasn't able to document or analyse my second metric for effectiveness (insights from recordings). Even though this couldn't be completed I believe the 1st metric for effectiveness (scenario answers) provides enough information to analyse the goal "Is finding specific information confusing/difficult or straightforward/easy".

Biases

Participant Selection

For participant selection I can disclaim that I didn't select participants due to how they would perform in my study. I did however have limited potential participants so the selection process was choosing anyone who met the criteria of being a student at university of Portsmouth and also agreed to be in my study. This creates a somewhat random selection method however a lot of the people who agreed to participate had the common factor of being my friend.

Scenarios

The five chosen scenarios might not represent the full range of tasks users typically perform on the website. The selection of these specific tasks could have overlooked certain features, potentially missing additional usability issues or strengths.

Equipment

All studies were completed on my pc to remove any biases due to subjects using different devices with different screen sizes.

Location

Studies were taken in different locations. Some studies were taken in peoples homes, some studies were taken in my home, some studies were taken in class. I do not believe this would have much effect on the results however it is a difference between studies regardless.

Target Time Determination

The 90 second target time was based only on testing similar councils' websites, creating a standard not validated against Portsmouth's unique structure or real user expectations. This time doesn't account for differences between council websites.

Questionnaire Design

The wording of certain questions could have led participants toward particular answers, however the balance between positive and negative statements was to mitigate this. The questionnaire primarily used Likert scales with predetermined response options, this may simplify complex issues but produces more comparable results.

Focusing on negatives

The study's primary focus on identifying problems rather than recognizing positive aspects may have created a negative framing effect, though this potential bias doesn't undermine the validity of the predominantly negative results obtained across all three usability metrics. Analysing problems is also more insightful and often leads to improvement so these aspects received more attention but where positive aspects were found, they were stated.

Design recommendations

Future iterations should prioritise streamlining navigation paths, improving search functionality, and creating a more predictable information architecture. Particular attention should be given to high failure areas like the library catalogue. Successful elements like the bin collection feature could serve as models for other sections of the website. If all of these changes were made at a high standard I believe the website would be able to achieve the usability goals I set and have overall high usability.

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Citations

Southampton City Council. (2025). Southampton City Council website.
https://www.southampton.gov.uk/

Bristol City Council. (2025). Bristol City Council website. https://www.bristol.gov.uk/

Appendices

Appendix A

Scenarios

Thank you for participating in my study. Please complete these 5 tasks on the Portsmouth City Council website (https://www.portsmouth.gov.uk/) and type or paste your answers in the spaces provided.
It is important that you navigate back to the homepage after completing any given task before starting the next task.
Please fill in the digital copy of this form.

1. Can you find the local councillor for po40bj?

Answer:

2. Can you check the availability of "Harry Potter and the Chamber of Secrets" at Southsea Library?

Answer:

3. Can you find when bins are next collected for any house at po40bj?

Answer:

4. Can you find the link to the page about Southsea Castle?

Answer:

5. Can you find the name of the first lord mayor of Portsmouth?

Answer:

Appendix B

Post testing questionnaire

Thank you for participating in my usability test. Your feedback is valuable to my study. Please take a few moments to complete this questionnaire.

Please answer each question by selecting the option that best represents your experience with the website.

1. I am satisfied with my overall experience on this website.

☐Strongly Disagree ☐Disagree ☐Neutral ☐Agree ☐Strongly Agree

2. The website is easy to use.

☐Strongly Disagree ☐Disagree ☐Neutral ☐Agree ☐Strongly Agree

3. The website is frustrating to use.

☐Strongly Disagree ☐Disagree ☐Neutral ☐Agree ☐Strongly Agree

4. It was difficult to find the information I was looking for throughout the tasks.

☐Strongly Disagree ☐Disagree ☐Neutral ☐Agree ☐Strongly Agree

5. It was difficult to navigate back to the homepage after completing tasks.

☐Strongly Disagree ☐Disagree ☐Neutral ☐Agree ☐Strongly Agree

6. I felt confident I was making the correct steps to completing the task I was on throughout.

☐Strongly Disagree ☐Disagree ☐Neutral ☐Agree ☐Strongly Agree

7. I am likely to use this website again.

☐Strongly Disagree   ☐Disagree   ☐Neutral   ☐Agree   ☐Strongly Agree

8. The tasks could be performed simpler with a design change.

☐Strongly Disagree   ☐Disagree   ☐Neutral   ☐Agree   ☐Strongly Agree

9. How would you rate the website's appearance?

☐Very bad   ☐Bad   ☐ Average   ☐Good   ☐Very good

10. How would you rate the organisation of information?

☐Very bad   ☐Bad   ☐ Average   ☐Good   ☐Very good

11. Did you encounter any problems?

☐Yes   ☐No

If yes, what:_____

_____

12. Do you have any additional feedback about the website you would like to share? (optional)

_____

_____

Appendix C

University of Portsmouth

Department of School of Computing

Winston Churchill Ave, Southsea, Portsmouth PO1 2UP

Participant information sheet

date: 30/4/2025
Version: 1.2
Title of Project: portsmouth.gov.uk usability study
Name and Contact Details of Researcher: Harry Miller - up2120303@myport.ac.uk
University Data Protection Officer: Samantha Hill, 023 9284 3642 or
information-matters@port.ac.uk

Dear Potential Participant,

You are invited to take part in a research study conducted by Harry Miller, a Bsc
Undergraduate at University of Portsmouth.

Before you decide, please read this document carefully. It explains the study's purpose, what
participation involves, and your rights. Feel free to ask any questions before agreeing to take
part.

Purpose of the Study:

As part of my studies I am required to look at the usability of a website. The purpose of the
study is to look at the usability of Portsmouth's Local Authority website.

Why Have I Been Invited:

I believe you would be a suitable participant in my research as you are a student that studies
in the geographical area.

Is Participation Optional?

Participation in this study is entirely optional, and you are not required to take part. You are
free to withdraw at any point without giving a reason. If you withdraw you can ask for your
data to be removed.

What Will I Be Doing?

If you agree to take part you will be asked to carry out a variety of searches on Portsmouth's
Local Authority website, and then complete a short questionnaire.

Up2120303 usability testing cw

If you wish to speak to me, please use the contact details above.

Thank you for taking the time to read this letter. Your attention and consideration mean a great deal, regardless of the decision you ultimately make.

Yours Sincerely,

Mr Harry Miller

Appendix D

University of Portsmouth

Department of School of Computing

Winston Churchill Ave, Southsea, Portsmouth PO1 2UP

CONSENT FORM

Date: 30/4/2025
Version: 1
Title of Project: portsmouth.gov.uk usability study
Name and Contact Details of Researcher: Harry Miller - up2120303@myport.ac.uk
University Data Protection Officer: Samantha Hill, 023 9284 3642 or
information-matters@port.ac.uk

1. I confirm that I have read and understood the information sheet dated 30/4/2025 (version 1.2)

for the above study. I have had the opportunity to consider the information, ask questions and have
 had these answered satisfactorily.

2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any
   reason.

3.   I understand that data collected during this study will be processed in accordance with data protection law as
    explained in the Participant Information Sheet 30/4/2025 (version 1.2)

4. I agree to take part in the above study.

Name of Participant:

Date: **Signature:**

Name of Researcher: Harry Miller

Date: **Signature:**

Up2120303 usability testing cw

Note: *When completed, one copy to be given to the participant, one copy to be retained in the study file*