



# COMPARING MOZILLA FIREFOX AND OPERA

a Study in Usability



## ABSTRACT

A ten-point comparison on the usability of two web browsers

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ENGL 317 – Project #4

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## INTRODUCTION

This white paper describes the findings of a usability study comparing two web browsers: **Mozilla Firefox** and **Opera**. This study looked at how each of these browsers performed when the user was told to perform normal, but not *common*, tasks. Because this is a comparison of their usability, rather than analyze how each performed in speed or anything that quantitative, the study utilized Likert scales to have the user rate each task on a series of metrics. All the tasks performed are not necessary daily tasks, but certainly an important component of a modern web browser (like changing the homepage, installing extensions, etc.).

In order to avoid bias, the two web browsers that were tested have both **never been used by the user before**. This eliminated the two more *popular* browsers from comparison, Google Chrome and Safari, but allows for more accurate comparisons. The user is quite computer 'savvy,' but this should not be a huge factor, as both of the platforms being tested have not been used by the user before.

The purpose of this paper is to give an unbiased analysis on the comparative usability of the two web browsers on the following metrics: **effective, efficient, engaging, error tolerant**, and **easy to learn**.

## METHODOLOGY

### TASK LIST

I assigned the following tasks for myself in order to evaluate the two platforms' usability:

1. Installing the respective browser
2. Installing an extension
3. Change the default font size
4. Change the homepage
5. Change the default theme
6. Change the default search engine
7. Clear the internet browsing history
8. Save the login information of a website
9. Uninstall an extension
10. Open the browser's developer console

## TEST ENVIRONMENT

The test was performed on March 24<sup>th</sup>, 2019. It was performed in my home, on a MacBook Pro running macOS Mojave. The versions of Mozilla Firefox and Opera that all tasks were performed on were the most recent versions available, so Firefox 62.0 and Opera 55.0.2994.61.

Given the varying complexity of the tasks, the efficiency metric was not timed and I instead left up to myself to determine 'reasonable' times for each task. This could be improved upon in future revisions of the test, but works fairly well for most tasks, as users have a good **general** idea of how long any given task *should* take.

## TEST METRICS

In order to make assessing each metric of the two products' usability easier, short criteria statements were written for each product, task, and metric. These give a small description of how I was to evaluate each metric. Although the criteria statements might bias the results a little bit, they also create consistency in the test as it reduces the interpretation by the user (should it be someone other than myself). A short list of these criteria statements is provided below:

1. I was able to install Mozilla Firefox without many unnecessary interactions
2. The interface of Mozilla Firefox made changing the default font size easier
3. I was able to change the default search engine

Clearly, these statements are all worded in such a way that both guide the user, and allow for clear response in a Likert Scale format. I chose the following scale:

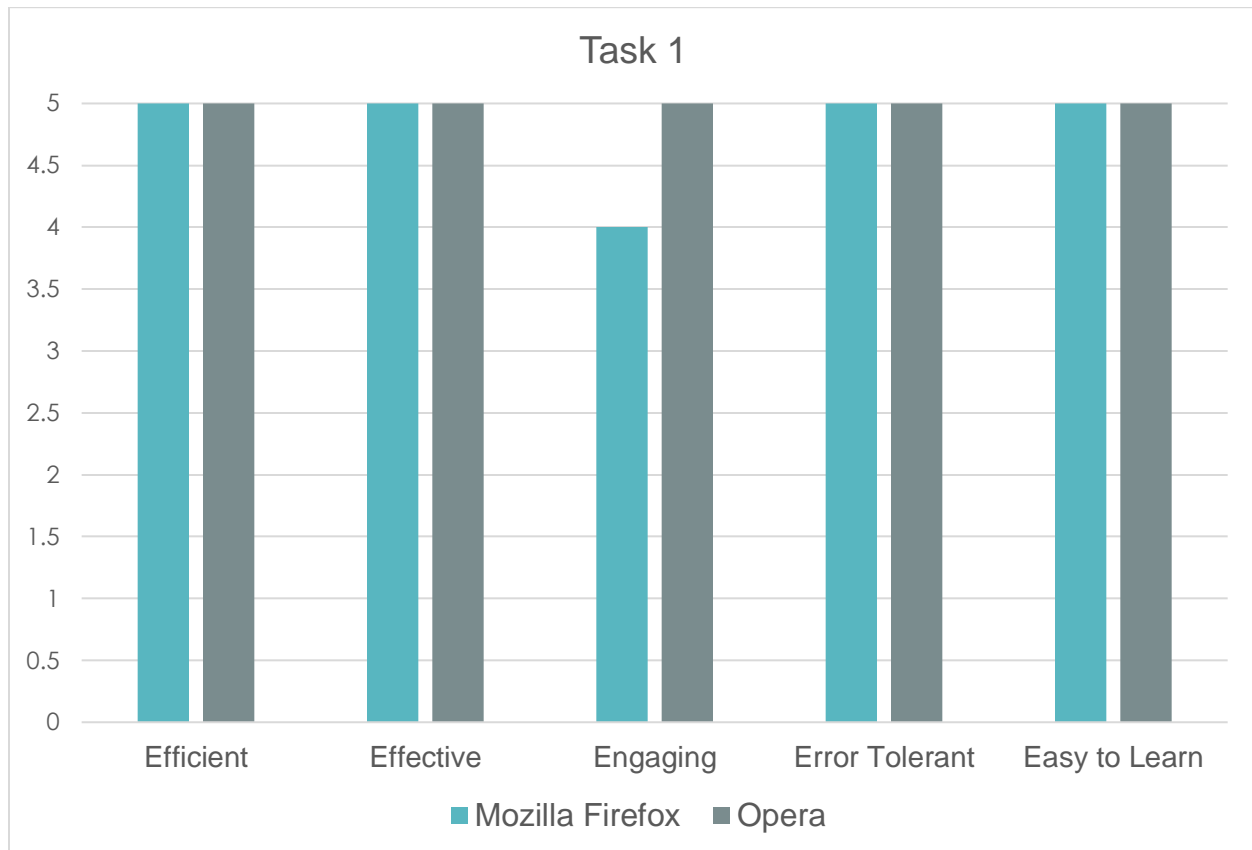
1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree

## RESULTS

### TASK 1 – INSTALLING EACH BROWSER

Luckily, both of these processes were very simple for both browsers. Mozilla Firefox launched the normal macOS disk mount for the browser, and required me to physically drag the Mozilla Firefox launcher into my Applications folder. Afterwards, I had to manually dismount the installation 'disk' to complete the

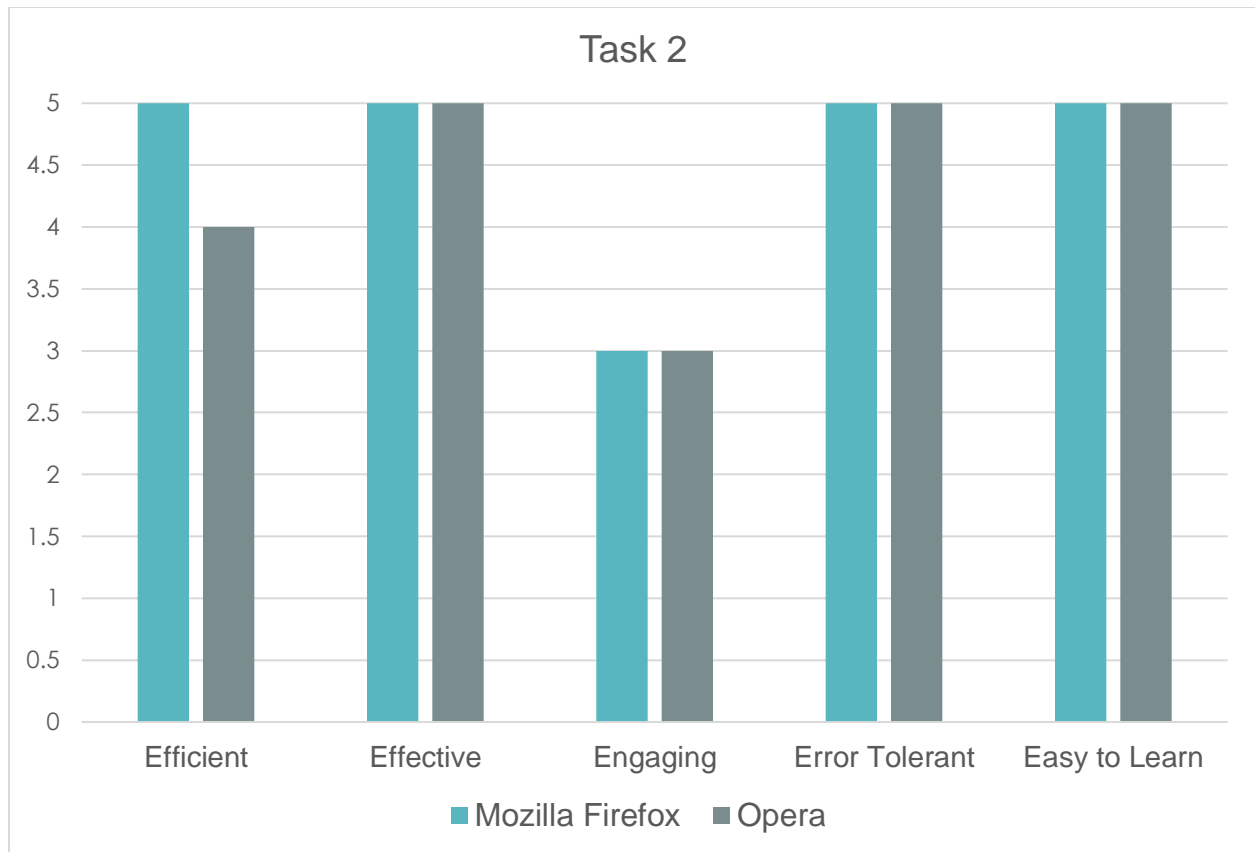
process. On the other hand, the Opera browser launched a custom installation program that only required one button press to complete the installation. Afterwards, the wizard closed itself and the process was completed.



Both browsers scored very well, although I did mark Mozilla Firefox down in both engaging and error tolerant because of the lack of dedicated interface for the installation and because I could have just **not** unmounted the disk at the end and it'd be impossible to delete.

## TASK 2 – INSTALLING AN EXTENSION

Coming from the more popular Google Chrome browser, both of these programs had unnecessarily difficult extension installation processes. In both, I was unable to find any native 'extension' button to add or manage existing extensions, so I had to look up each browser's respective extensions. For this reason, I marked both programs down in Engaging, and Opera in Efficient.

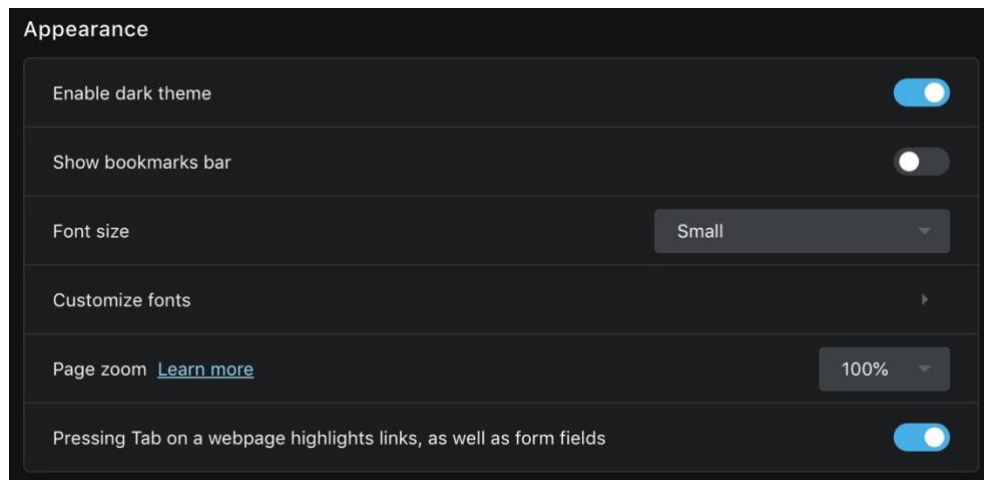


### TASK 3 – CHANGING THE DEFAULT FONT SIZE

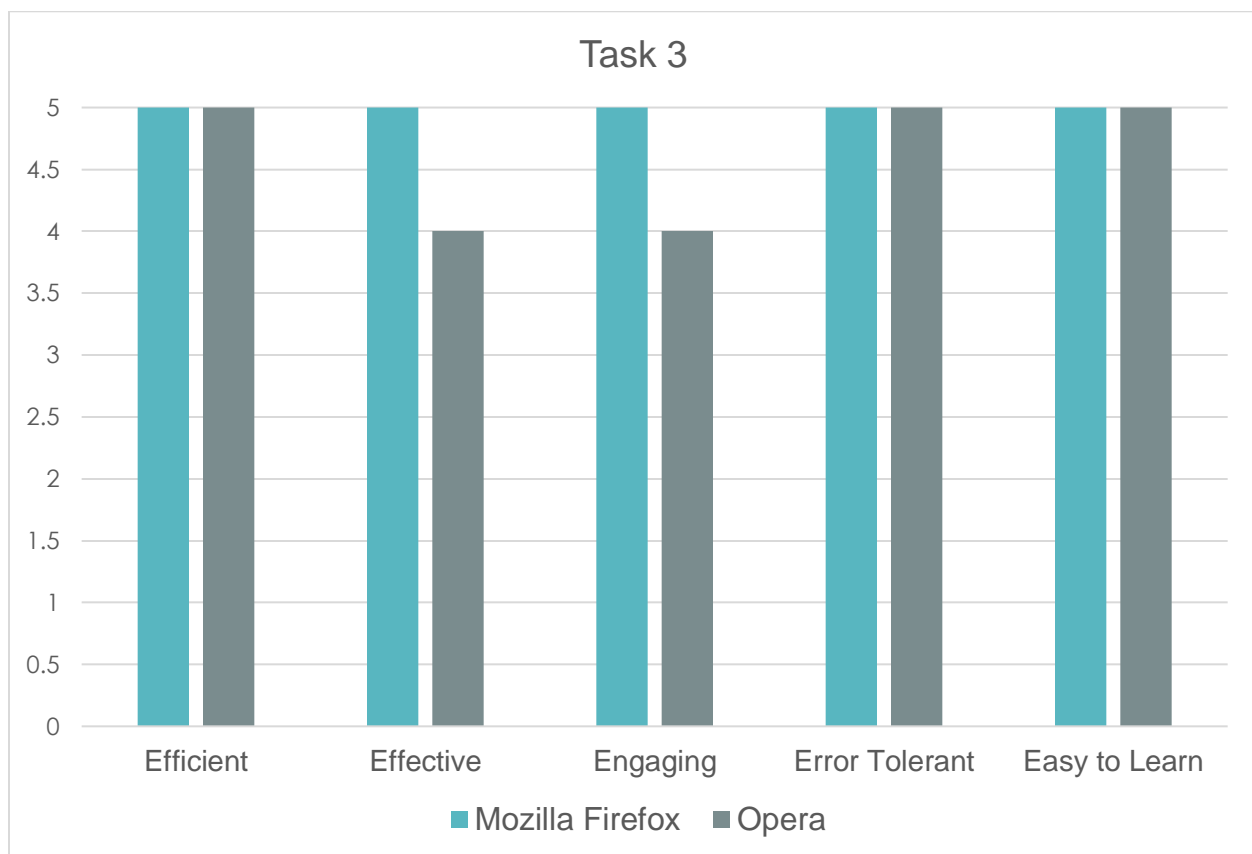
Mozilla Firefox and Opera had nearly identical ways of changing the default font size for each browser. After accessing the preferences menu, they both had menu is shown below:



And here is the menu for Opera:

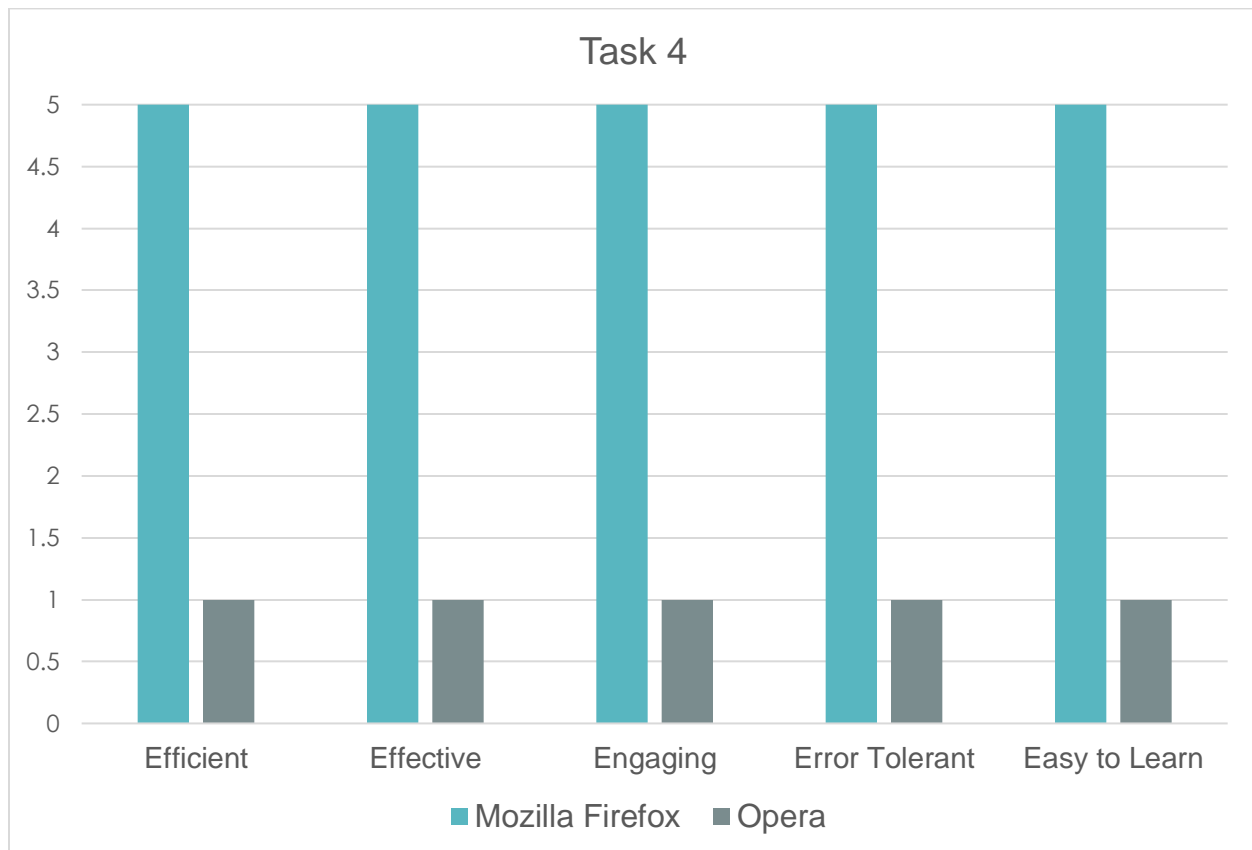


Clearly, both browsers made it very easy to change the default font size. Although, Firefox did provide more minute control of the size, providing many sizes from 8-64, while Opera only gave presets of Very Small to Very Large. Because of this, I gave Opera a lesser score in both Effective and Engaging, as the design limited my ability to minutely control the font size of the browser.



## TASK 4 – CHANGING THE HOMEPAGE

Mozilla Firefox made changing the homepage very easy, but on the Opera browser I was actually unable to find any way of accomplishing this task at all. Even searching the keywords 'home' and 'page' in the browser's preferences resulted in nothing. Because of this, the results of these two tasks are very different.

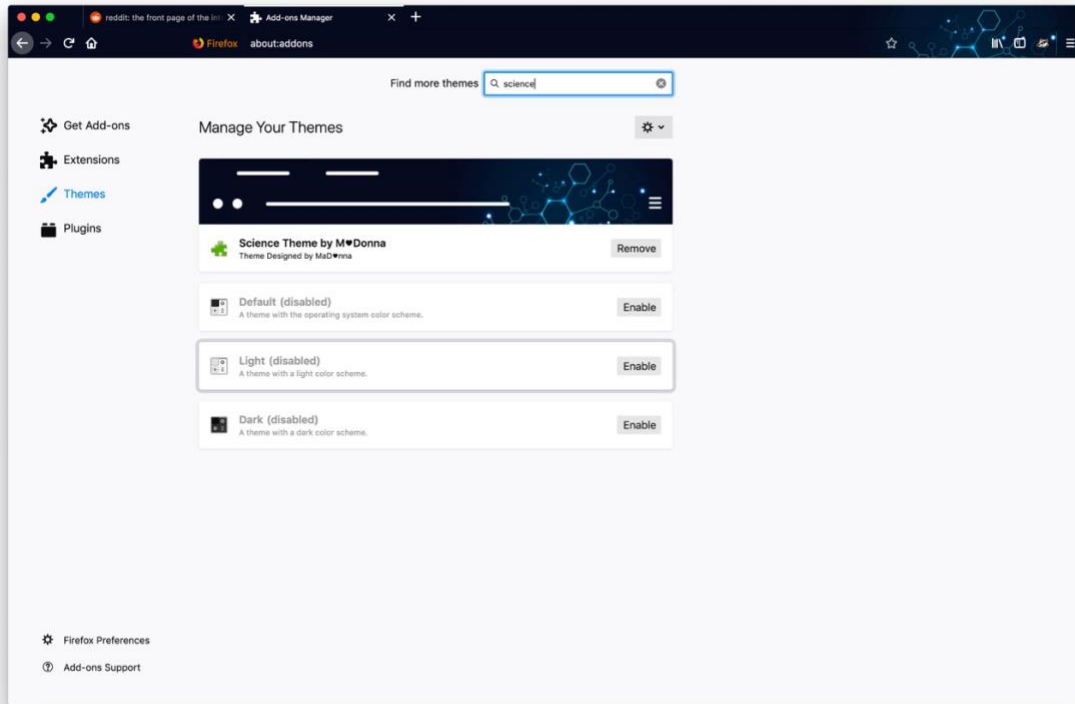


I believe that the Opera browser replaces the homepage system with something different altogether, but it is very confusing for a new user like myself who is used to every other browser having something called the homepage, hence my poor marking in all categories for Opera.

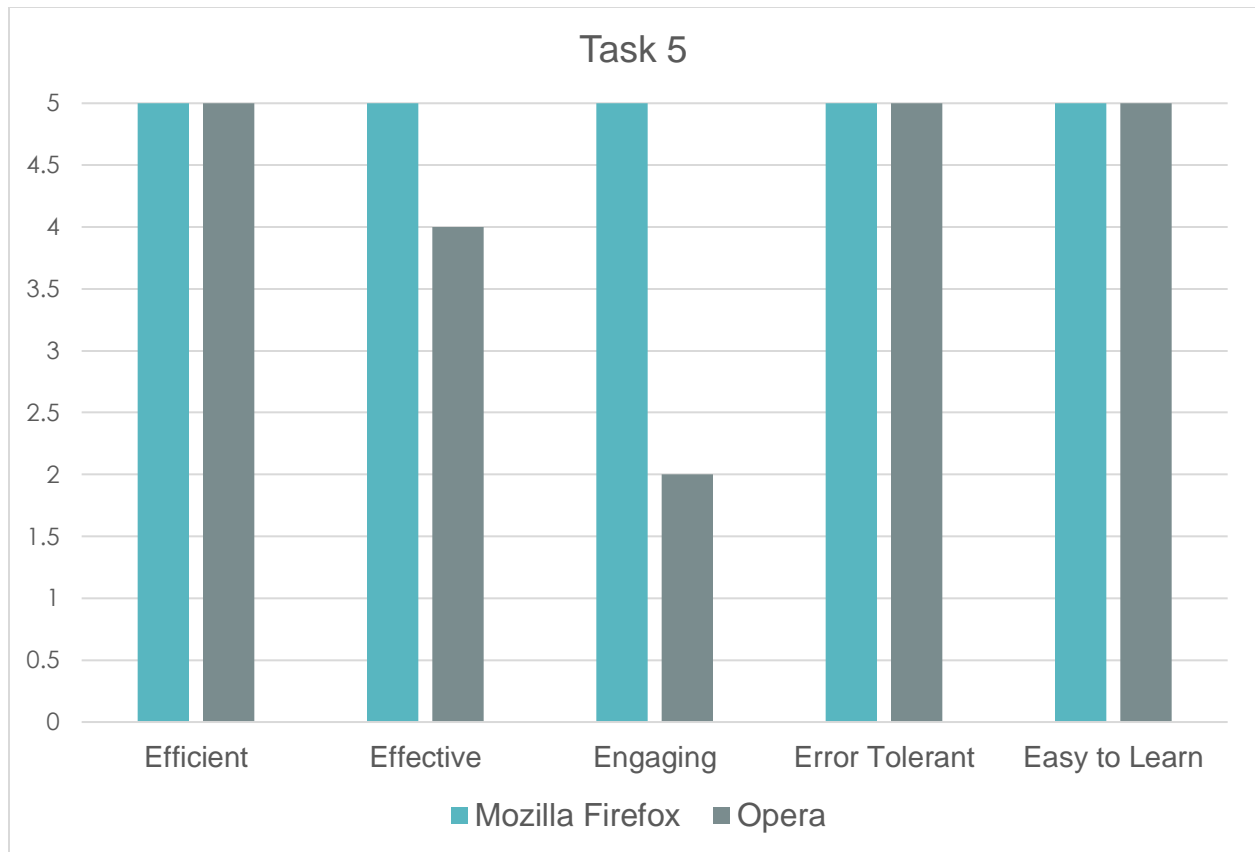
## TASK 5 – CHANGING THE BROWSER THEME

A browser's theme is one of the available customizations that changes the aesthetic of the program, usually in a few different ways. In the preferences page for Mozilla Firefox, the following menu was very easy to access and made adding and removing themes very simple



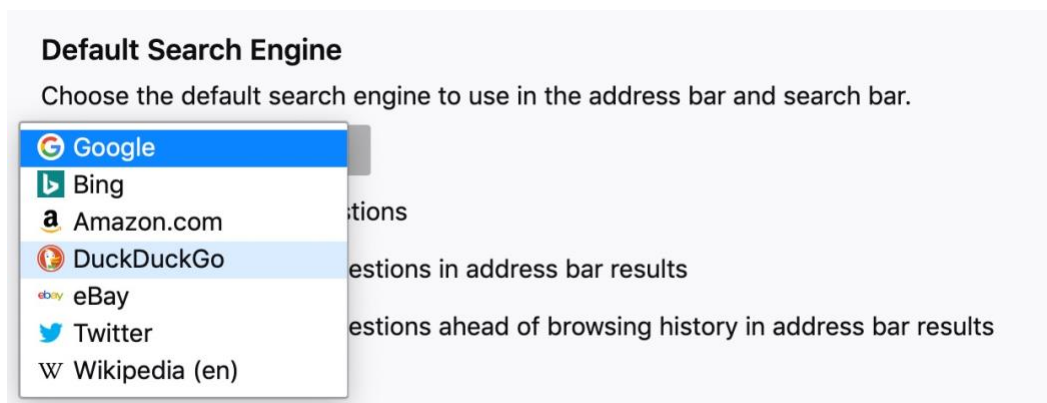


On the other hand, the Opera browser had no clear 'theme' section of its preferences page, and I had to look up "Opera themes" to find the website I needed. Even after changing the theme, all that really changed was the new-page look, which was not what I expected nor what this effectively communicated, resulting in a lower score in effectivity and engaging.

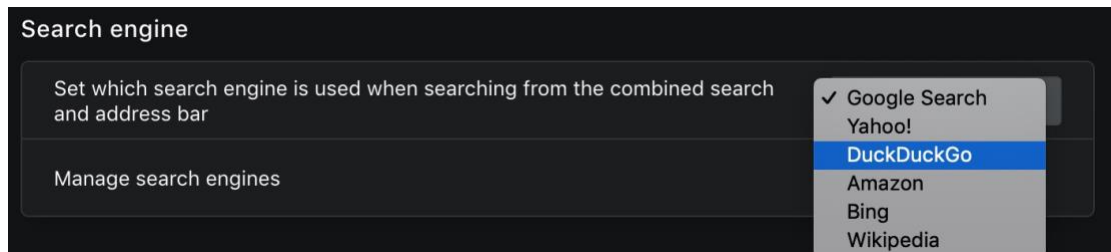


## TASK 6 – CHANGING THE DEFAULT SEARCH ENGINE

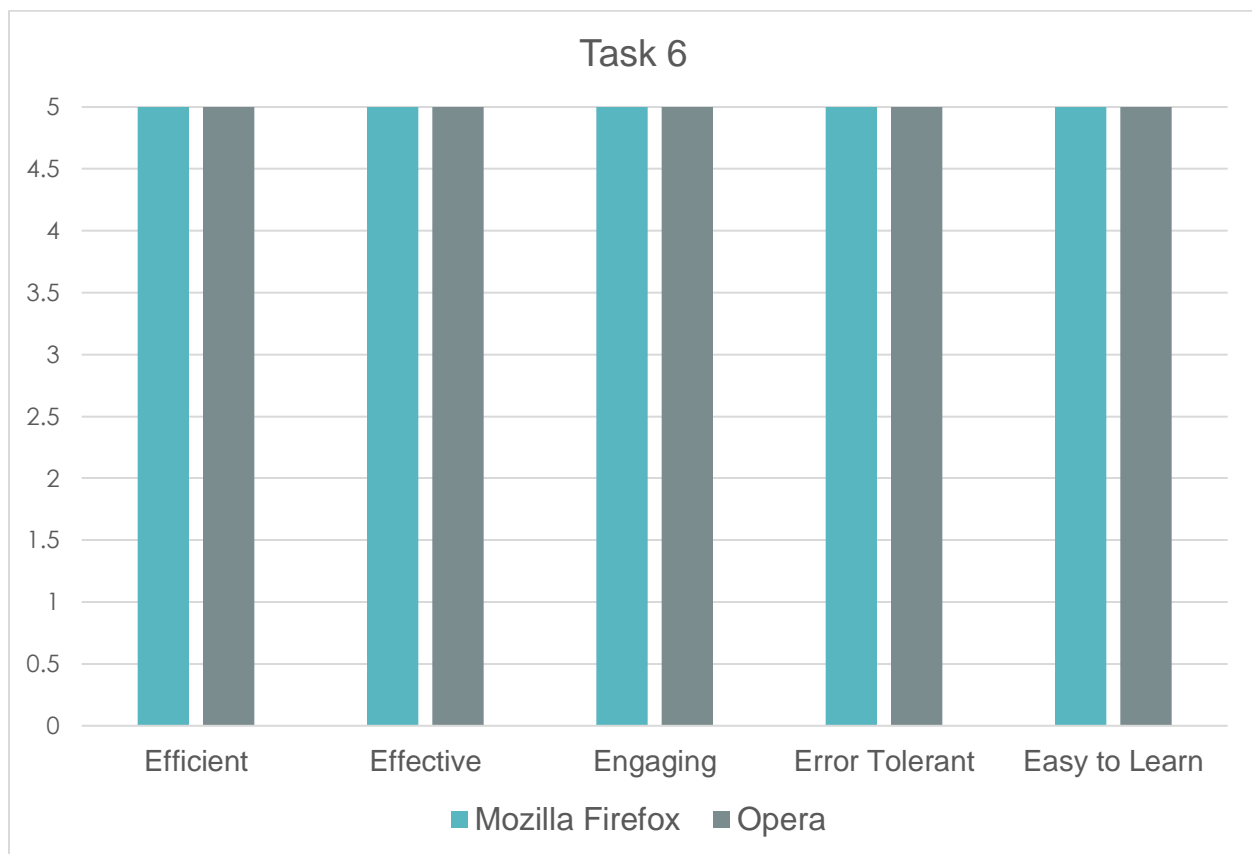
Many people have personal preferences about which search engine they use, and I think it's an important component of a modern web browser to be able to change that. Luckily, both browsers provided very easy ways to change this, and actually gave pre-available lists of default search engines that could be set very easily. Mozilla Firefox's menu is shown first:



Next, Opera:

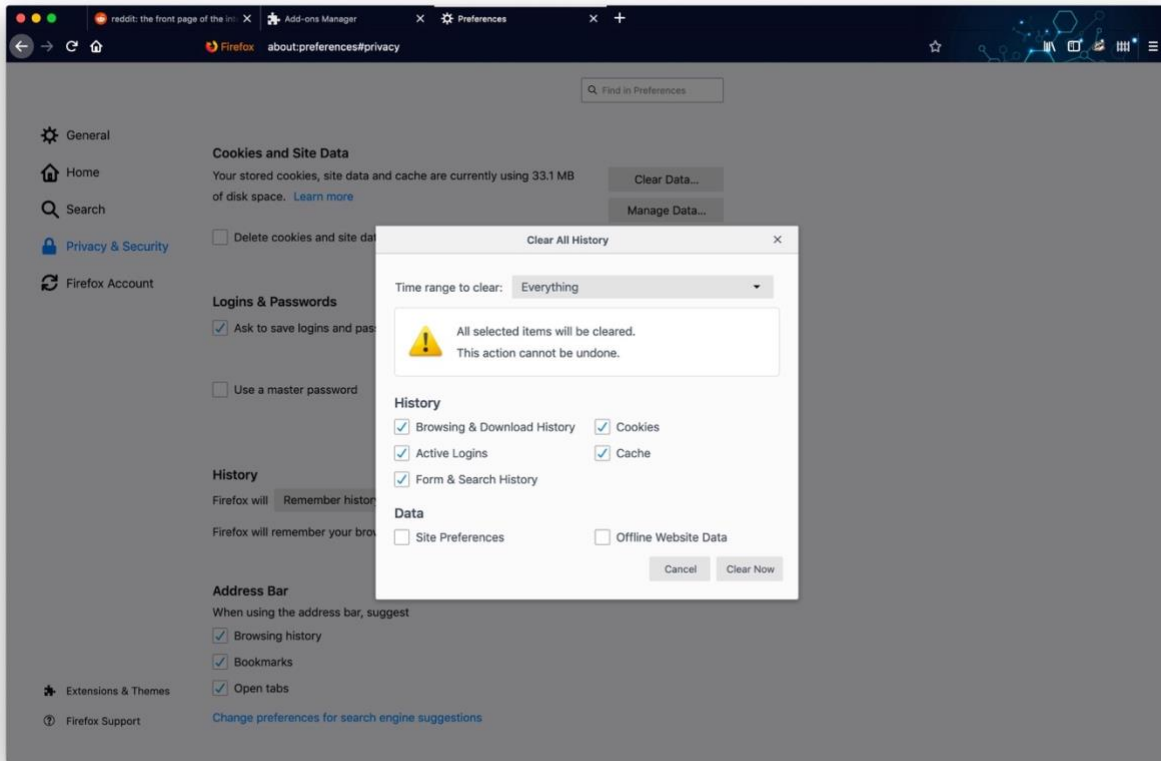


Both of these browsers made this change very easy to perform, and the addition of a list of defaults was very useful.

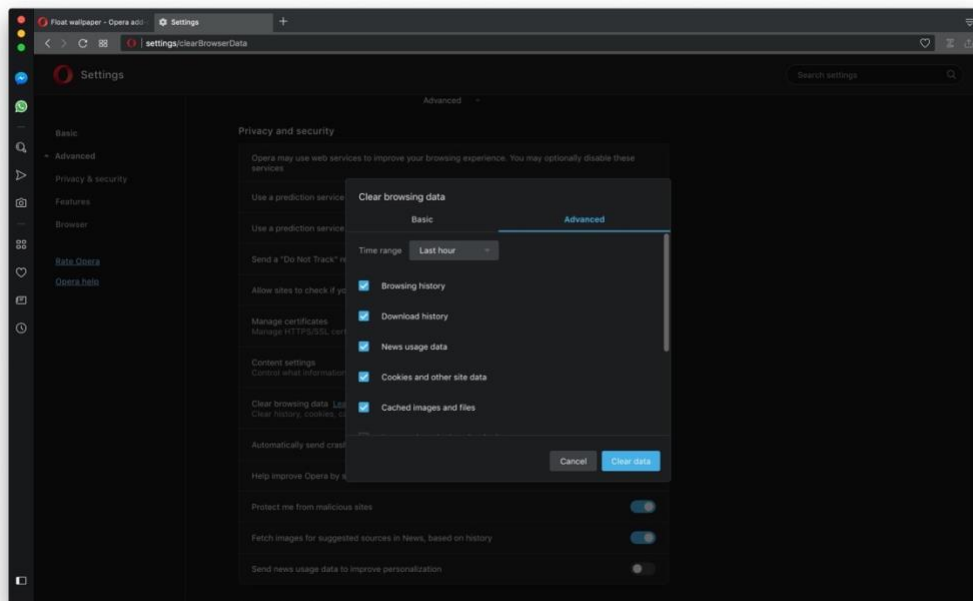


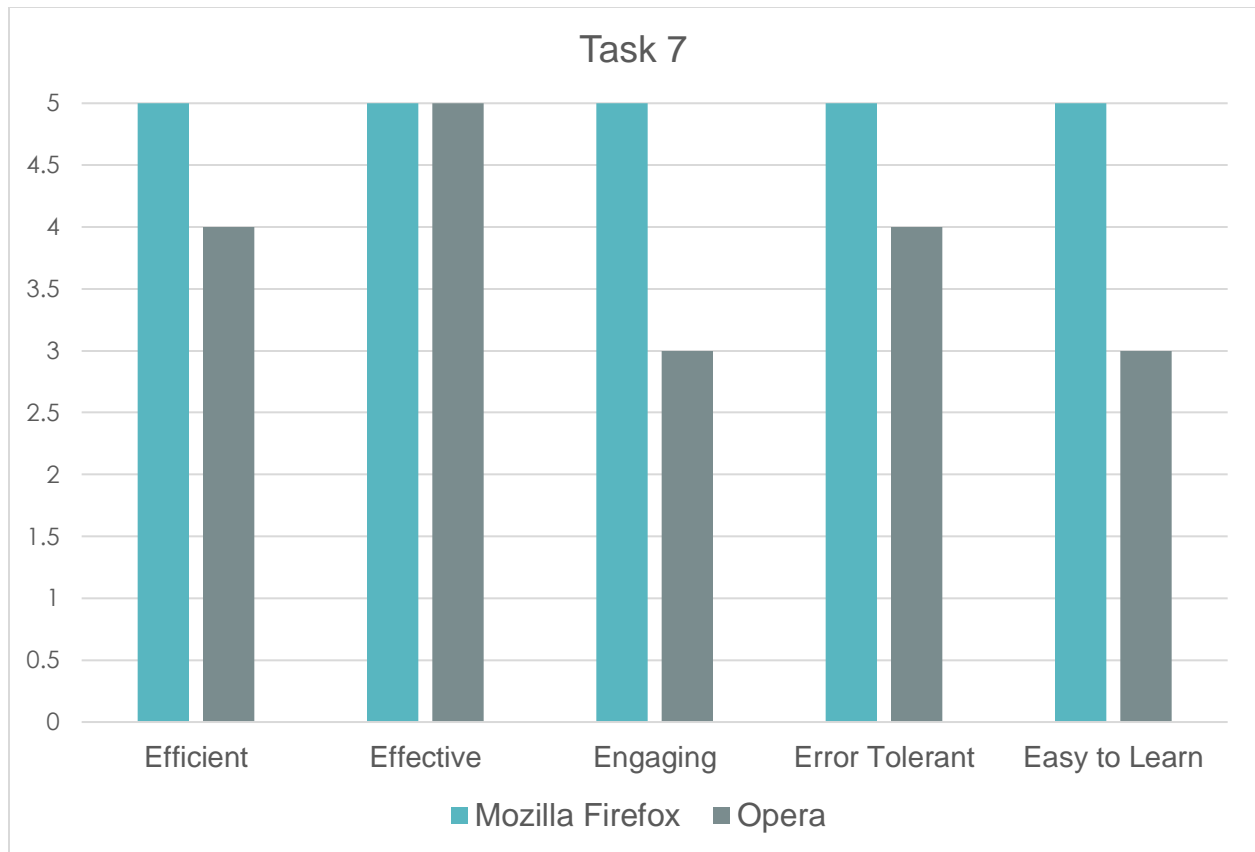
## TASK 7 – CLEARING THE INTERNET BROWSING HISTORY

Either for privacy, security, or performance reasons, clearing your internet browsing history is a very important task that many users perform regularly. Mozilla Firefox made performing this task very simple, and when the time-range of 'Everything' (all browsing history) is selected, a very helpful warning is provided that the action **cannot** be undone, which is great for preventing accidental erasures.



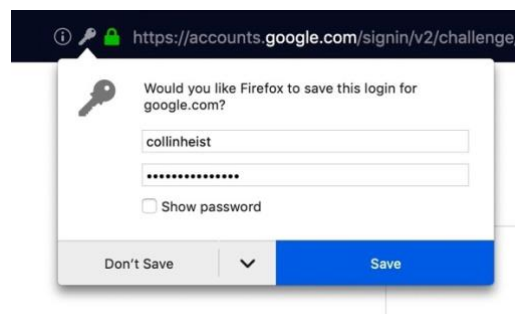
Sadly, Opera had a significantly less intuitive placement for this option, with it being tucked away inside a long menu of all “Privacy and security” options. In addition to this, no warning was given for any time range selection.



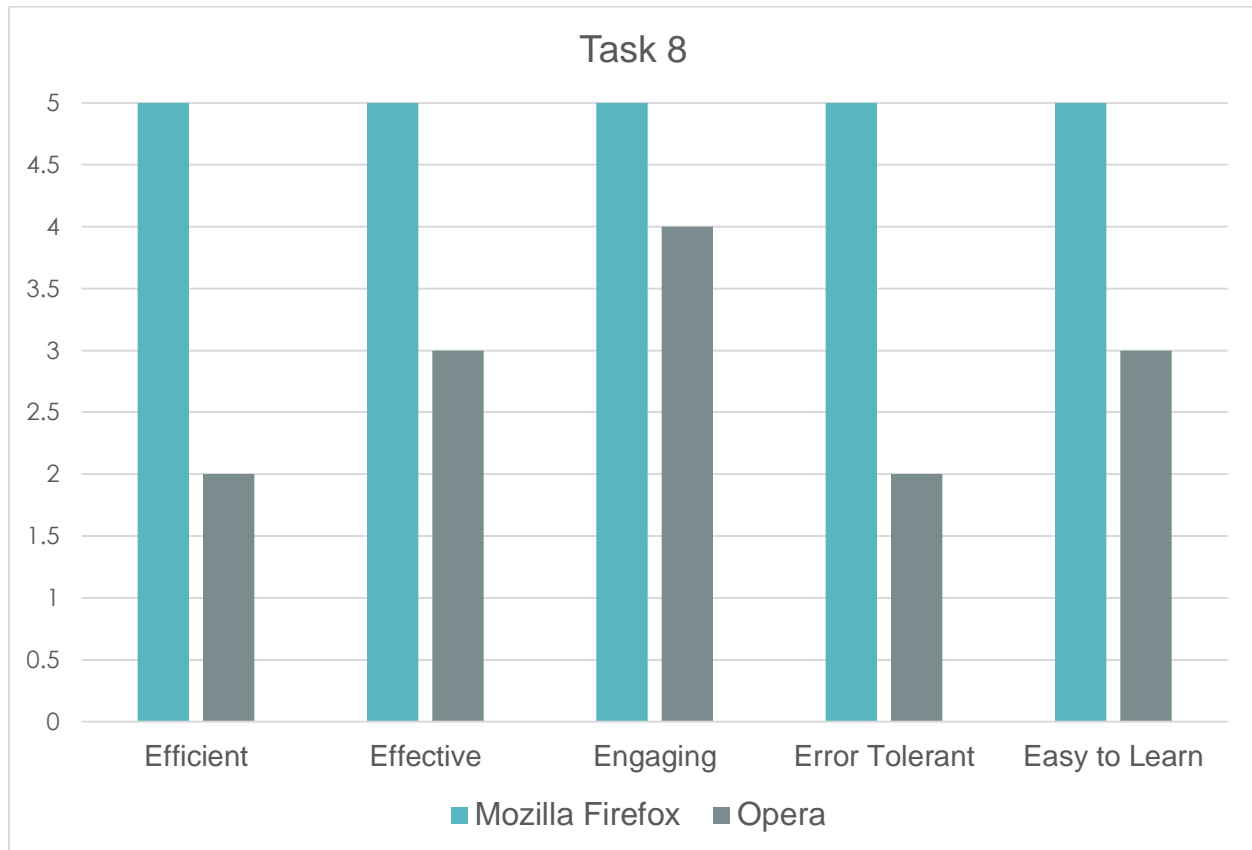


## TASK 8 – SAVE THE LOGIN INFORMATION OF A WEBSITE

The amount of accounts the average person has is increasing every day, and it is unfeasible to expect people to remember all of these account logins, as well as keep their passwords separate and secure. Because of this, browsers allow for securely storing many website's information so they can be easily logged into on repeat visits. For Mozilla, this process worked perfectly and a nice prompt appeared after I first entered in my login information, and even gave me the option to change the information right there.

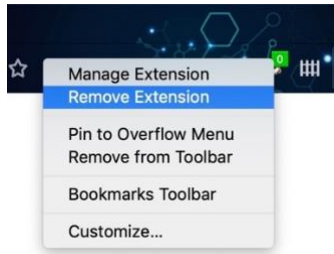


Unfortunately, Opera's built-in password manager **did not** appear at all for Gmail, even after logging out and retrying. Only when logging into a different website altogether was I able to get the prompt to appear as a small on-screen toolbar, but it disappeared very shortly after and I wasn't able to agree. Because of this, I rated Opera quite poorly in almost all categories.

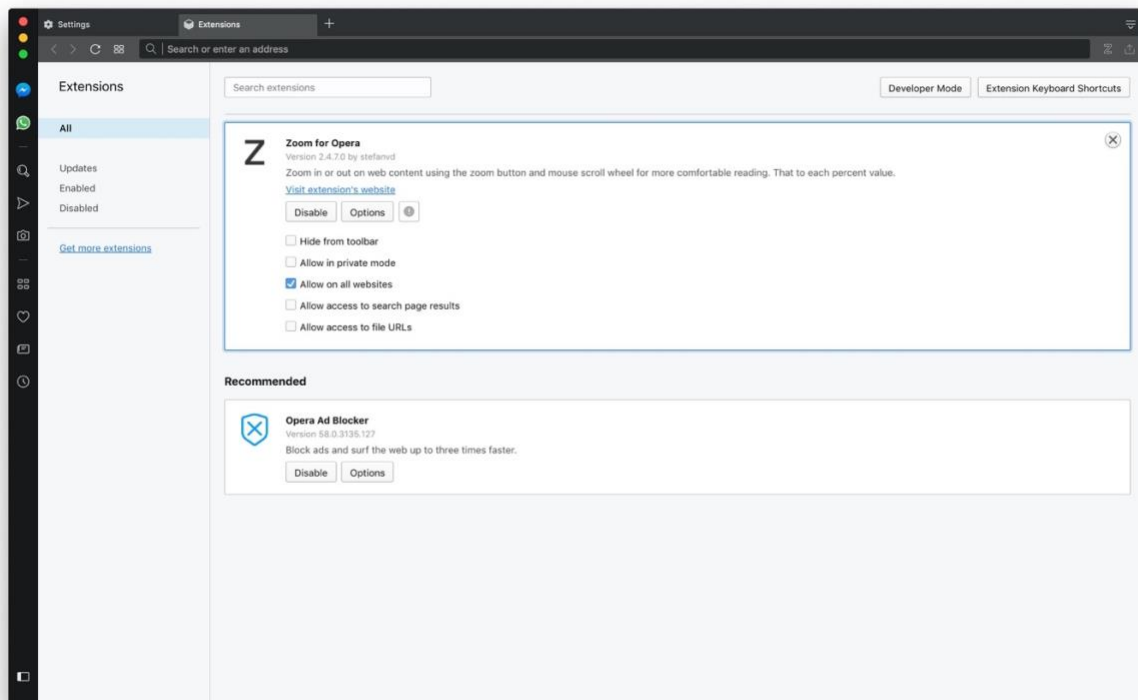


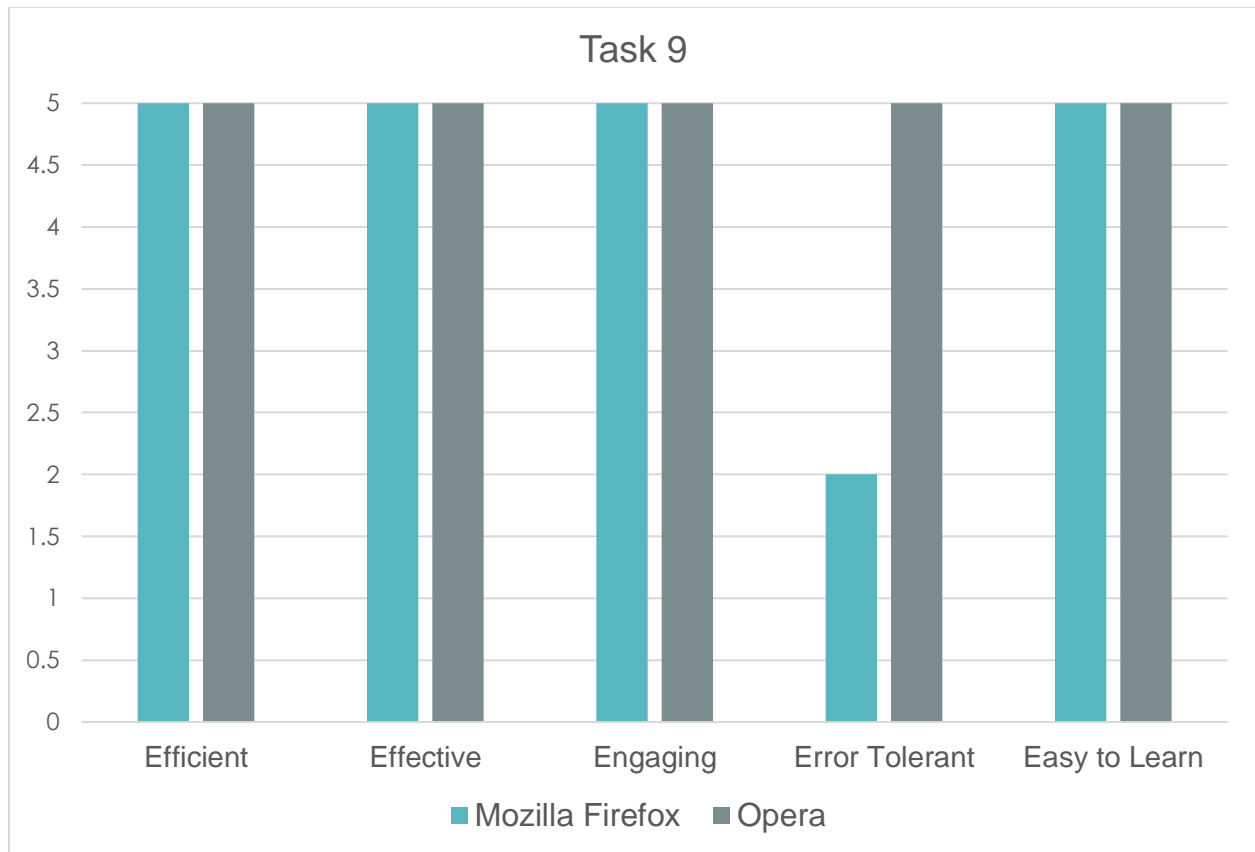
## TASK 9 – UNINSTALL AN EXTENSION

Just as important as the ability to easily and effectively install extensions, uninstalling unused or undesirable extensions is key to using a modern web browser to its fullest extent. In Mozilla Firefox, the task was quite easy to do, and accessed by only right-clicking the relevant extension in the toolbar, but I marked it down due to the inability to 'undo' an accidental deletion, making the whole process more error prone.



In Opera, this whole task was a lot more streamlined. Right-clicking the extension brought me to the options menu, where any given extension could be disabled or outright deleted. This would be far more effective at preventing accidental deletions and can reduce the work on the user in the future should they only want to temporarily disable the extension.

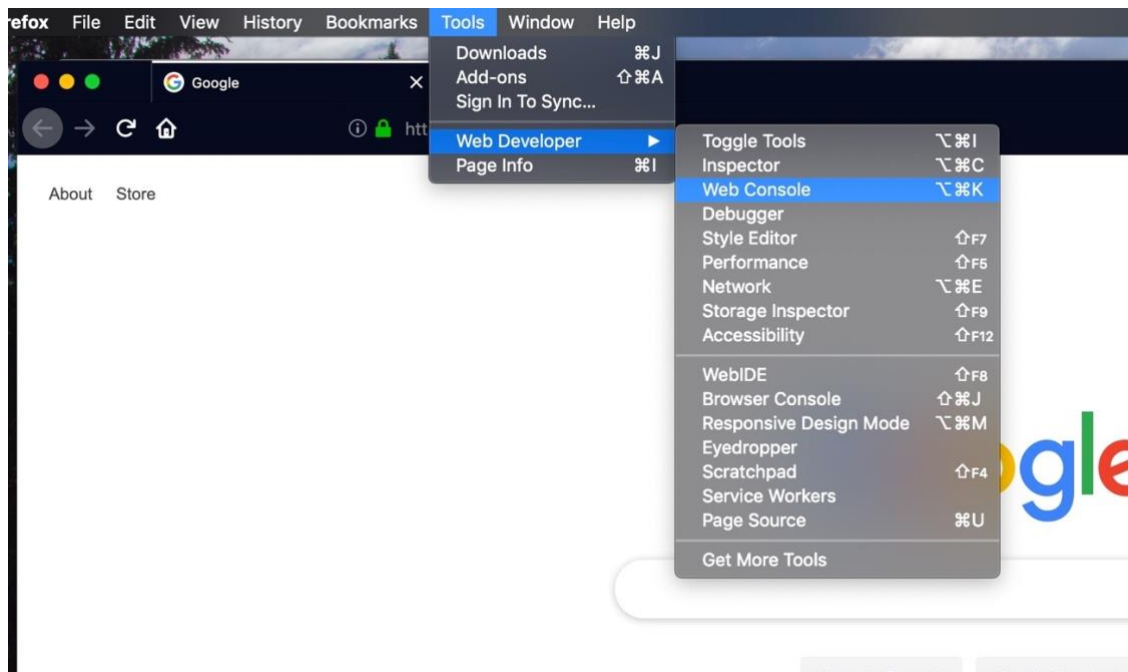




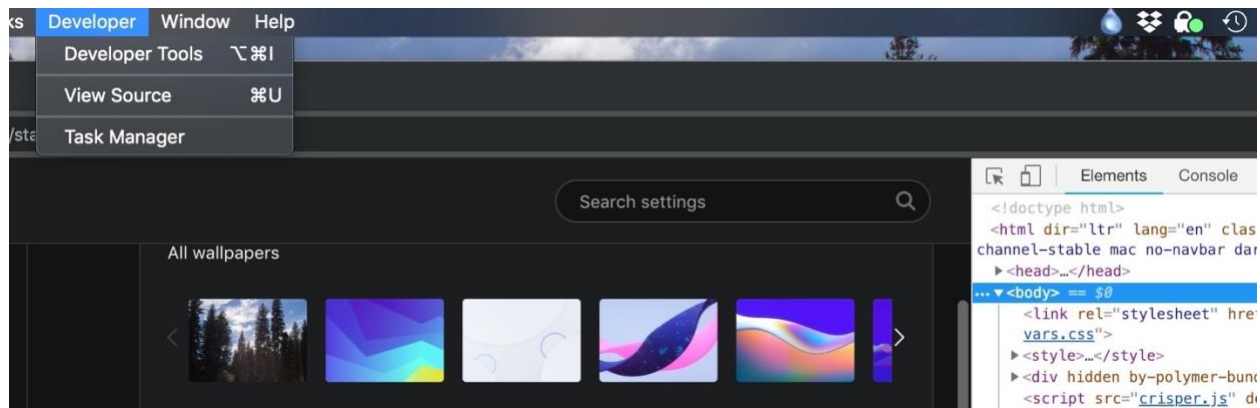
## TASK 10 – OPEN THE DEVELOPER CONSOLE

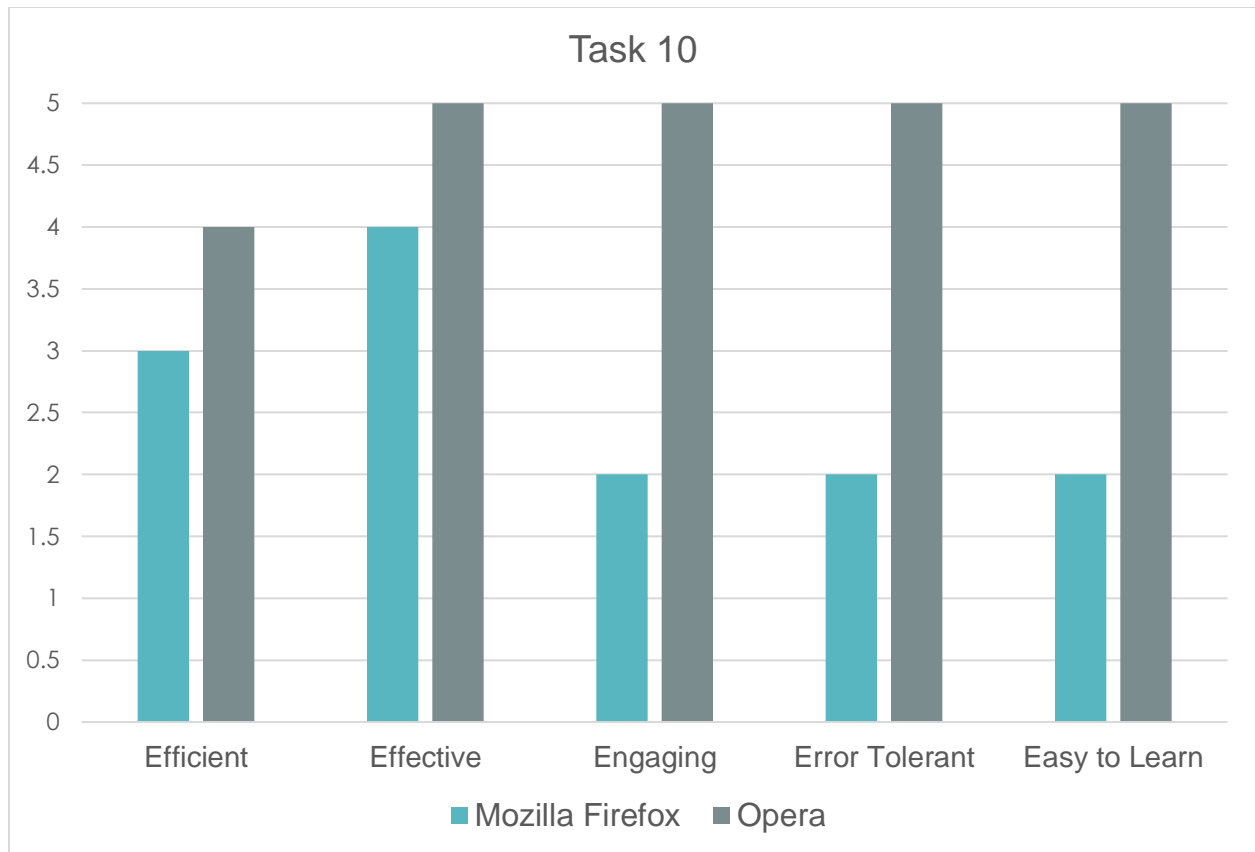
This task addresses the other use for web browsers, their importance for web development. Being able to quickly and easily access the developer console is essential to many user's interaction with the browser (although not an integral part of my own daily use). Firefox had many different 'console' options available, and all of them were tucked into the same sub-menu of the 'Tools' taskbar. Their nonspecific wording made accessing each of them not only tedious but necessary to determine which was the correct one.





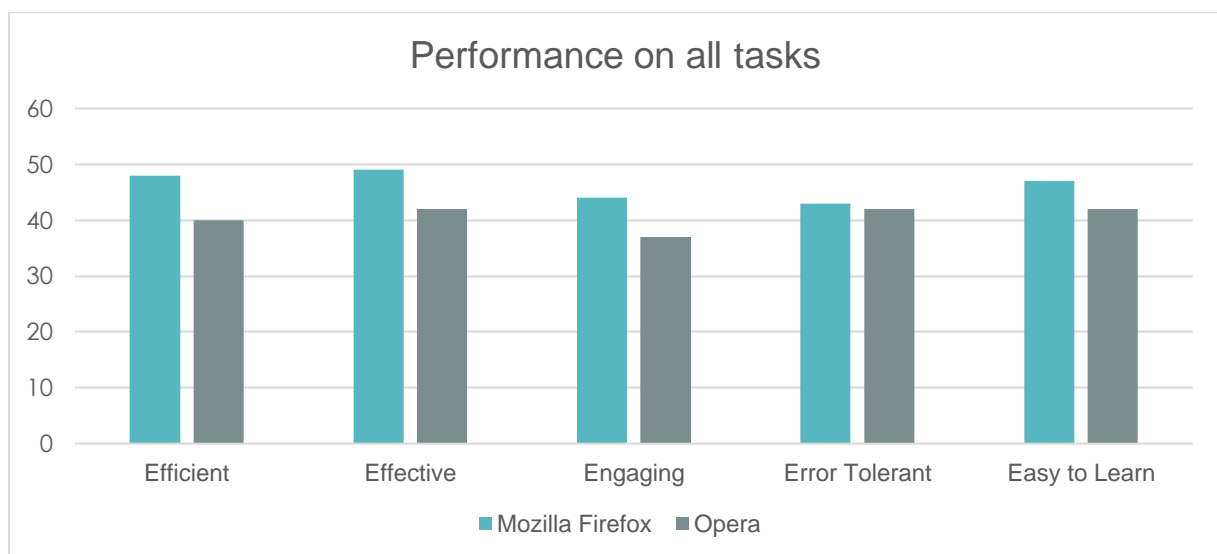
On the other hand, Opera had a very properly labeled menu called 'Developer' which contained not many subitems, and led almost directly to the console. The only reason I marked down Opera in the Efficient category is because the console was found under "View Source," which seems confusing.





## CONCLUSION

Summating the scores of each browser in each metric led to the following scores:



Looking at these, it is quite clear that (if all metrics and tasks are to be weighted equally) Mozilla Firefox outperformed Opera as the more usable of the two browsers. Although the two performed nearly identically, with an average score of above 4 on all metrics for both browsers (except for Opera's Engaging score), Mozilla Firefox had an average score at least 0.5 points higher than Opera in almost all categories.

After using both, the differences do seem quite miniscule. Despite this, I can confidently recommend that **Mozilla Firefox be used as opposed to Opera**. This comes down to personal preference, but to me, Opera suffered greatly from a non-intuitive menu system that made system-wide changes difficult to perform and decreased the browser's usability quite a bit. I would change the preferences section in Opera to a more compartmentalized system that makes navigation much easier for users. Mozilla Firefox does not have much room for improvement (from my perspective have performed this test), but the installation process was not very well polished especially compared to Opera's.

All raw data from the test, along with my comments, can be found in the attached Appendix.

## BIBLIOGRAPHY

<https://www.mozilla.org/en-US/firefox/new/>

<https://www.opera.com/>

# APPENDIX

Mozilla Firefox						Opera					
<b>Task 1</b>	<b>Installing Mozilla Firefox</b>					<b>Task 1</b>	<b>Installing Opera</b>				
	I was able to install Mozilla Firefox without many unnecessary interactions						I was able to install Opera without many unnecessary interactions				
<b>Efficient</b>	1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree	<b>Efficient</b>	1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	I was able to install Mozilla Firefox successfully and completely						I was able to install Opera successfully and completely				
<b>Effective</b>	1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree	<b>Effective</b>	1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	The style / appearance of Mozilla Firefox enhanced the installation process						The style / appearance of Opera enhanced the installation process				
<b>Engaging</b>	1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree	<b>Engaging</b>	1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	This process was not critically hindered by small mistakes						This process was not critically hindered by small mistakes				
<b>Error Tolerant</b>	1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree	<b>Error Tolerant</b>	1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	It was very easy to learn how to install Mozilla Firefox						It was very easy to learn how to install Opera				
<b>Easy to Learn</b>	1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree	<b>Easy to Learn</b>	1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Comments</b>	Had to drag the application to the folder, the installation was not unmounted at the end					<b>Comments</b>	Required only one click				

Mozilla Firefox						Opera					
<b>Task 2</b>	<b>Installing an extension</b>					<b>Task 2</b>	<b>Installing an extension</b>				
	It was a quick process to install an extension						It was a quick process to install an extension				
Efficient	1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree	Efficient	1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	I was able to install an extension						I was able to install an extension				
Effective	1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree	Effective	1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	The style / appearance of the browser aided in the installation of an extension						The style / appearance of the browser aided in the installation of an extension				
Engaging	1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree	Engaging	1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	It was easy to recover from mistakes made during the installation process						It was easy to recover from mistakes made during the installation process				
Error Tolerant	1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree	Error Tolerant	1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	I could repeat this task once more with much ease						I could repeat this task once more with much ease				
Easy to Learn	1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree	Easy to Learn	1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments	I did not find any native installation button, I had to look up extensions online					Comments	Also no native extensions button, I looked it up				

Mozilla Firefox						Opera					
<b>Task 3</b>	<b>Change the default font size</b>					<b>Task 3</b>	<b>Change the default font size</b>				
<b>Efficient</b>	It was a simple and quick process to change the default font size					<b>Efficient</b>	It was a simple and quick process to change the default font size				
	1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree		1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Effective</b>	I was able to change the default font size of Mozilla Firefox					<b>Effective</b>	I was able to change the default font size of Opera				
	1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree		1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>Engaging</b>	The interface of Mozilla Firefox made changing the default font size easier					<b>Engaging</b>	The interface of Opera made changing the default font size easier				
	1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree		1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>Error Tolerant</b>	It was easy to recover from errors made during this process					<b>Error Tolerant</b>	It was easy to recover from errors made during this process				
	1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree		1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Easy to Learn</b>	I could repeat this task once more with much ease					<b>Easy to Learn</b>	I could repeat this task once more with much ease				
	1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree		1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Comments</b>						<b>Comments</b>					

Mozilla Firefox						Opera					
<b>Task 4</b>	<b>Change the homepage</b>					<b>Task 4</b>	<b>Change the homepage</b>				
Efficient	I changed the homepage in a reasonable amount of time					Efficient	I changed the homepage in a reasonable amount of time				
	1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree		1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Effective	I was able to change the homepage					Effective	I was able to change the homepage				
	1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree		1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Engaging	The visual design of Mozilla Firefox made this task easier					Engaging	The visual design of Opera made this task easier				
	1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree		1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Error Tolerant	There was clear feedback from Mozilla Firefox when I made a mistake					Error Tolerant	There was clear feedback from Opera when I made a mistake				
	1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree		1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Easy to Learn	I could repeat this task once more with much ease					Easy to Learn	I could repeat this task once more with much ease				
	1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree		1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	There is a nicely labelled tab called 'Home' in the preferences page					Comments	Couldn't find anything about changing the homepage, not even after searching all preferences				

Mozilla Firefox						Opera					
<b>Task 5</b>	<b>Change the browser's theme</b>					<b>Task 5</b>	<b>Change the browser's theme</b>				
Efficient	I was able to change the theme of the browser in a reasonable amount of time					Efficient	I was able to change the theme of the browser in a reasonable amount of time				
	1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree		1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Effective	I was able to change the browser's theme					Effective	I was able to change the browser's theme				
	1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree		1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Engaging	The visual design of the browser made this task easier					Engaging	The visual design of the browser made this task easier				
	1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree		1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Error Tolerant	It was easy to identify and recover from mistakes made during this process					Error Tolerant	It was easy to identify and recover from mistakes made during this process				
	1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree		1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Easy to Learn	I could repeat this task once more with much ease					Easy to Learn	I could repeat this task once more with much ease				
	1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree		1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments	Very easy, found the buttons and everything					Comments	The theme really only changed the new-page look, which I didn't expect. Also couldn't find a button for this, had to google				



Mozilla Firefox						Opera					
<b>Task 6</b>	<b>Change the default search engine</b>					<b>Task 6</b>	<b>Change the default search engine</b>				
Efficient	It took a reasonable amount of time to change the default search engine					Efficient	It took a reasonable amount of time to change the default search engine				
	1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree		1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Effective	I was able to change the default search engine					Effective	I was able to change the default search engine				
	1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree		1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Engaging	The visual design of Mozilla Firefox aided in my completion of this task					Engaging	The visual design of Opera aided in my completion of this task				
	1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree		1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Error Tolerant	It was easy to identify and recover from mistakes during this process					Error Tolerant	It was easy to identify and recover from mistakes during this process				
	1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree		1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Easy to Learn	I could repeat this task once more with much ease					Easy to Learn	I could repeat this task once more with much ease				
	1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree		1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments	Very easy and quick, pre-available list of default search engines					Comments	Nice pre-available list of default search engines				

Mozilla Firefox						Opera					
<b>Task 7</b>	<b>Clear the internet browsing history</b>					<b>Task 7</b>	<b>Clear the internet browsing history</b>				
	It was appropriately simple and quick to clear the browsing history						It was appropriately simple and quick to clear the browsing history				
Efficient	1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree	Efficient	1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	I was able to clear this browser's history						I was able to clear this browser's history				
Effective	1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree	Effective	1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	The visual design of the browser made this task easier to accomplish						The visual design of the browser made this task easier to accomplish				
Engaging	1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree	Engaging	1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	It was easy to identify and recover from mistakes during this process						It was easy to identify and recover from mistakes during this process				
Error Tolerant	1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree	Error Tolerant	1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	I could repeat this task once more with much ease						I could repeat this task once more with much ease				
Easy to Learn	1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree	Easy to Learn	1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	Very easy and gave nice warning when deleting all information					Comments	Hard to find the 'clear browsing data' button, it was kind of tucked away in one of the menus				

Mozilla Firefox						Opera					
<b>Task 8</b>	<b>Save the login information of a website</b>					<b>Task 8</b>	<b>Save the login information of a website</b>				
Efficient	I was easily able to save my login information for a website					Efficient	I was easily able to save my login information for a website				
	1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree		1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Effective	I was able to save the login information for a website					Effective	I was able to save the login information for a website				
	1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree		1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Engaging	There were appropriate visual aids from the browser that helped me store my info					Engaging	There were appropriate visual aids from the browser that helped me store my info				
	1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree		1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Error Tolerant	It was easy to identify and recover from mistakes during this process					Error Tolerant	It was easy to identify and recover from mistakes during this process				
	1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree		1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Easy to Learn	I could save another website's login very easily next time					Easy to Learn	I could save another website's login very easily next time				
	1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree		1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	Very easy, the prompt appeared immediately and even allowed me to edit my information					Comments	The 'save info' prompt did not even appear for Gmail, and it appeared only briefly for another website, but disappeared too quickly. To redo it, I'd have to log out and log back in				

Mozilla Firefox						Opera					
<b>Task 9</b>	<b>Uninstall an extension</b>					<b>Task 9</b>	<b>Uninstall an extension</b>				
<b>Efficient</b>	It was quick and easy to uninstall an extension					<b>Efficient</b>	It was quick and easy to uninstall an extension				
	1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree		1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Effective</b>	I was able to uninstall an extension					<b>Effective</b>	I was able to uninstall an extension				
	1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree		1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Engaging</b>	The visual design of Mozilla Firefox aided in this process					<b>Engaging</b>	The visual design of Mozilla Firefox aided in this process				
	1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree		1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Error Tolerant</b>	It was easy to identify and recover from mistakes during this process					<b>Error Tolerant</b>	It was easy to identify and recover from mistakes during this process				
	1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree		1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Easy to Learn</b>	I could repeat this task once more with much ease					<b>Easy to Learn</b>	I could repeat this task once more with much ease				
	1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree		1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Comments</b>	Very quick and easy, but if I accidentally removed the wrong one there was no 'undo' option					<b>Comments</b>	Quick right-click of the extension brought me to the options screen. There I could disable it and uninstall it; very error-proof				

Mozilla Firefox						Opera					
<b>Task 10</b>	<b>Open the browser's developer console</b>					<b>Task 10</b>	<b>Open the browser's developer console</b>				
	It was quick and easy to open the developer console						It was quick and easy to open the developer console				
Efficient	1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree	Efficient	1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	I was able to open the developer console						I was able to open the developer console				
Effective	1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree	Effective	1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	The visual design of the browser made opening the console easier						The visual design of the browser made opening the console easier				
Engaging	1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree	Engaging	1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	It was easy to identify and recover from mistakes during this process						It was easy to identify and recover from mistakes during this process				
Error Tolerant	1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree	Error Tolerant	1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	I could repeat this task once more with much ease						I could repeat this task once more with much ease				
Easy to Learn	1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree	Easy to Learn	1 - Strongly Disagree	2 - Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments	There were many different 'console' options cluttering up the toolbar, made picking the right one very confusing. I am not sure if I could correctly pick the right one next time					Comments	Taskbar item labelled "Developer" which had little options and brought me right to the console				