



## JOINT COUNCILS' EXECUTIVE MONTHLY REPORT

Developed by the Research Committee

June 2021

# 1. Introduction

Usability testing is a research methodology used to evaluate the effectiveness of a product with real users.<sup>1</sup> It is a key element of the User-Centered Design (UCD) Process. UCD is a design process where designers focus on gaining a deep understanding of the end user and their needs in each phase of a product's design and development.<sup>2</sup>

A typical usability test involves observing users as they attempt to complete tasks. Observers carefully watch users, listen, and take notes.<sup>3</sup> The goal of usability testing is to identify "any usability problems, collect qualitative and quantitative data and determine the user's satisfaction with the product".<sup>4</sup> Usability testing is often conducted repeatedly, from the early development phase of a product until its release.

Government organizations across Canada are increasingly conducting usability tests to determine:

- How easily clients are able to use products and services;
- How intuitive products and services are; and
- How adaptable products are to meet user need(s).

- 1, 4. <u>Usability testing in design why is it important?</u>
- 2. <u>User-Centered Design Basics</u>
- 3, 5. A beginner's guide to user & usability testing
- 6. What is usability testing?

## Why is this Report Important?

- Investing in usability testing significantly reduces the likelihood of developing an ineffective product that does not match the needs of the end user. This ultimately saves government time, money, and increases return on investment (ROI).<sup>5</sup>
- Usability testing increases client satisfaction with products and services by enabling government to gather useful user reactions and feedback. This gives government the opportunity to identify usability problems quickly and replace what does not work.<sup>6</sup>
- The COVID-19 pandemic "the pandemic" has emphasized the value of usability testing. Jurisdictions across Canada are introducing new products and services to meet the needs of clients' during the pandemic. Conducting usability testing (remotely) ensures clients are able to use these new tools successfully and with ease.

## What is Covered in this Executive Report?

This report includes the following:

- Introduction & The Importance of Usability Testing
- Types of Usability Testing
- Steps for Successful Testing
- Key Considerations

# 2. Types of Usability Testing

The key difference between usability testing and traditional testing (bug testing or acceptance testing) is that usability testing takes place with the real users or target group of a product. Traditional testing is typically undertaken by a developer, designer or project manager. Usability testing removes any bias by collecting feedback directly from the end user.<sup>7</sup>

There are several different types of usability testing. However, the most common types include:

# Hallway/Guerilla Usability Testing<sup>8</sup>

- Conducts usability tests with random users in any setting (for example, in a coffee shop or hallway).
- A relatively fast and informal method to test ideas. It allows designers to gather high-level feedback and uncover potential user experience problem(s).

# In-Person Moderated Usability Testing<sup>9</sup>

- The usability test requires the active participation of a moderator (a real person that facilitates the testing). The moderator works directly with the test participant(s) and provides guidance through the testing process.
- This technique can be done inperson (in a lab or work environment) or remotely (via video-conference and requires test participants to share their screens).

# Remote — Un-Moderated Usability Testing<sup>10</sup>

- The usability test is completed by test participants in their own environment without a moderator present.
- This technique is typically used to test specific parts of a product (specific interaction scenarios), rather than providing an overall review of the user journey.

### **Qualities of a Usable Product**

According to Jakob Nielsen, in Usability Engineering there are five qualities of a usable product:<sup>11</sup>

#### Effective:

The completeness and accuracy with which users achieve their goals.

#### Efficient:

The speed (with accuracy) with which this work can be done.

#### **Engaging:**

How pleasant, satisfying or interesting an interface is to use.

#### **Error Tolerant:**

How well the product prevents errors, and helps the user recover from any that do occur.

### **Easy to Learn:**

How well the product supports both initial orientation and deeper learning.

- 7. What is usability testing?
- 8. <u>Usability testing in design why is it important?</u>
- 9, 10. Usability Testing: Moderated vs Unmoderated
- 11. Dimensions of Usability: Defining the Conversation, Driving the Process

# 3. Steps for Successful Usability Testing

Usability testing is an effective research methodology to ensure government products work and can be easily used by clients. The following are six steps for successful usability testing to obtain valuable design feedback from real users.<sup>11</sup>

methodology, how participants will be Develop a plan chosen, and the types of data to be collected. Share the findings with relevant stakeholders. Seek buy-in to proceed Build a prototype Report your with the suggested that is a true vision Create a improvements. Repeat findings & of the final product. prototype the process until the Repeat product meets user needs. **Roadmap for Usability Testing** Compile and Recruit/Choose summarize the Identify the target **Analyze the** test results. Improve the audience and recruit the test results product based on the participants right users. results and feedback of the test. **Test conducting** Conduct the test in an environment free from distractions. Record the

test and take notes.

### **Usability Testing in Canadian Jurisdictions**

**Note**: The following is not an exclusive list of usability testing conducted across Canada. The following list is just a sample of information published on government websites.





<u>Canadian Digital</u> <u>Services (Government</u> of Canada) Government of Ontario





Government of Saskatchewan Government of British Columbia



Government of Yukon

Identify the goals

# 4. Key Considerations of Usability Testing in the Public Sector

Government organizations across Canada are increasingly conducting usability tests to ensure products and services meet the needs of clients. However, there are a number of factors organizations need to consider before executing a usability test. Some key areas for consideration are highlighted below.



### The Cost of Conducting a Test

Conducting a usability test can be expensive (especially for smaller jurisdictions). Organizations must consider the costs associated with conducting the test, such as, recruiting participants, equipment(s) that will be used, and staff time.<sup>12</sup>



#### Value Added

Usability tests enables government to test the hypothesis or effectiveness of a specific product. If the results of a test confirms that the product is headed in the right direction, government still gains access to valuable insights regarding the product's offerings and the perspective of users. <sup>15</sup>



### The Cost Of Inaction

Some negative implications associated with <u>not</u> conducting a usability test include:<sup>13</sup>

- Poor user experience
- Decline in client satisfaction levels of government programs and services
- Reduction in client confidence and trust in government



## **Usability Testing is a Professional Skill**

It is important to acknowledge that creating and running a usability test is a real skill.<sup>16</sup> There are people and organizations that specialize in usability testing, and have finely honed skills and technology suited to the purpose.



#### **Test Results**

Most usability tests recruit a limited number of participants. As a result of this, the findings might not be representative of the entire target population.<sup>14</sup>

- 12. Advantages of Usability Testing and Some Drawbacks You Should Know
- 13. What's the Cost of Not Usability Testing?

# Some Resources to Support Your Usability Testing Efforts:

- Usability Testing Toolkit
- Usability Testing 101
- <u>Creating a User-Centered Approach in Government</u>
- 12. An evaluation toolkit for e-library developments
- 13. The Value of Usability Testing
- 14. <u>Customer Feedback Best Practices: Usability Testing</u>



## For Further Reading

- How Usability Testing Can Inform Your Municipal Website Design
- <u>Building a Foundation for Citizen-Centric Government</u>
   Design
- Driving innovation in government
- Data use in government: Where we're going next
- What does readability really mean?

## Other noteworthy articles:

IT modernization and cybersecurity are nearly one and the same now. What comes next?

Leveraging the TMF to improve customer experience

The hidden cost of poor content

Al's role in transforming government call centers

## **Research Repository**

Access the Citizen First Research Repository.

Recent entries on the research repository:

E-Signature in Government - Joint Councils' Executive Report May 2021

The report explores: The Benefits of E-Signature Solutions, Types & Public Sector Applications, Key Considerations, and Lessons Learned One Year into the Pandemic.

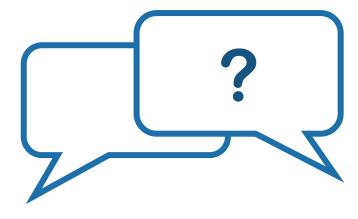


According to KPMG's latest report, digital technology, cloud platforms, collaboration with other governments, and new partnerships with industry backed by upskilled civil servants will transform how governments function in the 21st-century public interest. The KPMG report focused on Australia, Canada, Germany, India, Saudi Arabia, the UK and the US.

The unexpected onset of the pandemic and the shift of workspace have led to a rapid increase in cyber-attacks globally. Canada, the United States, and Australia are amongst the top countries with the top cybersecurity budgets around the world. From 2017 to 2021, worldwide spending on cybersecurity products and services would collectively exceed \$1 trillion.



The global pandemic has catalyzed digital transformation in the public sector. The public sector has embraced the cloud as a way to spin up innovative services quickly and safely. According to NextGov, attention has now shifted to government efforts to provide quick and safe access to these services, for for citizens, and between entities at a national and local level.



## We would love to hear from you!

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