

VA



U.S. Department
of Veterans Affairs

Facility Locator - Assistive Technology Discovery and Usability Study

Discovery Readout

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About the Research

Research Goals

Establish foundational knowledge of Veterans' Facility Locator search experience while using assistive technology on desktop and mobile devices.

Methodology

2-hour, moderated Zoom sessions with Veterans, who use screen readers, voice and/or other assistive technology. Participants were asked about their assistive technology usage, how they perform location search tasks online, and were given some common Veteran location search tasks to accomplish using their preferred method, VA.gov homepage and Facility Locator.

Who we spoke with

7 Veterans: Female (2), People of color; Black (3), Rural (3)

P#	LEVEL OF VISION	DEVICE	ASSISTIVE TECHNOLOGY	EXP LEVEL
P1	Completely blind	Desktop	JAWS SR	Adv
P2	Completely blind	Desktop	JAWS SR §†	Adv
P4	Cog Dis, Dyslexia	mobile	iOS dictation §†	Beg
P6	Low vision	mobile	VO/Keyboard §	Beg on iOS
P7	Completely blind	Desktop	JAWS SR	Adv
P9	Low vision	Desktop	ZoomText ¶	Int
P10	Low vision	Desktop	JAWS + ZoomText ¶	Beg

Tech not observed during testing: § Audio, † Video, ¶ ZoomText

Marginalized Veteran groups missing from this research:

- Other than honorable
- No college experience
- Latinx, Biracial, Asian, Native, or LGBTQ+)
- Expat (living abroad) or of immigrant origin

[Participant Tracker on Google Sheets](#)

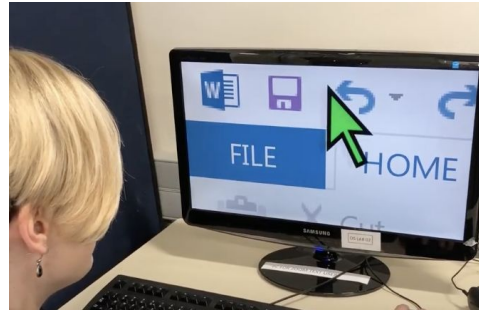
Assistive Technology

"Because my spelling is atrocious I tend to do it orally and it recognizes my voice."

–P4



ZoomText



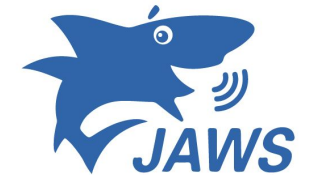
"I use JAWS on Windows, Voiceover on my iPhone. On my computer, I usually don't find directions. I would use my iPhone to do the grunt of the work because I use dictation."

–P2

FUSION™
POWERED BY
JAWS® AND ZOOMTEXT®

"I get the flexibility of using ZoomText or JAWS"

–P10



DRAGON
NATURALLY SPEAKING

"Sometimes I'll dictate directions into my Victor Reader Stream"

–P7



Dyslexia

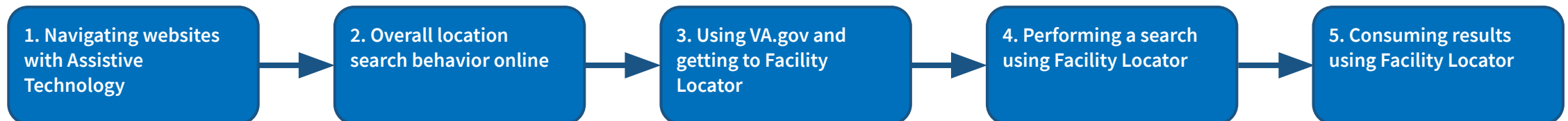
Low Vision

No Vision

Research Findings

Key Findings

1. As a Veteran who uses assistive technology, orienting myself on websites is often unpredictable, cumbersome and time-consuming.
2. When I look for location information for a place that I need to visit physically, I use my search engine either by dictating or typing in my search parameters.
3. I have trouble finding what I am looking for when I search for things on VA.gov.
4. I didn't know Facility Locator existed, but now that I do, I encounter some obstacles that would deter me from wanting to use this tool for searching.
5. Consuming Facility Locator search results was also tricky.



1. As a Veteran who uses assistive technology, orienting myself on websites is often unpredictable, cumbersome and time-consuming.

1.1 - I need to have multiple ways to accomplish online tasks but have my preferences

1.2 - I keep my desktop clean to not confuse my screen reader

1.3 - I make my viewport small so I may get a mobile experience on desktop

1.4 - I am new at using Siri but want to keep learning new ways of dictating my needs

1.5 - It's easy for me to make spelling mistakes

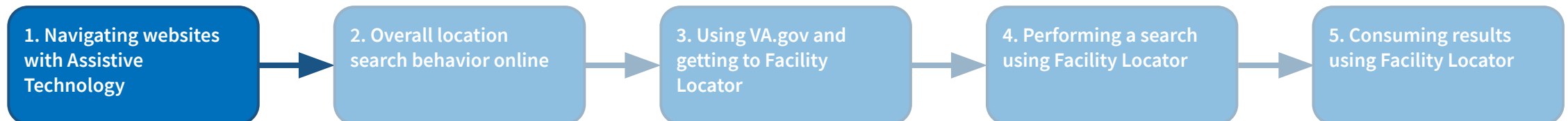


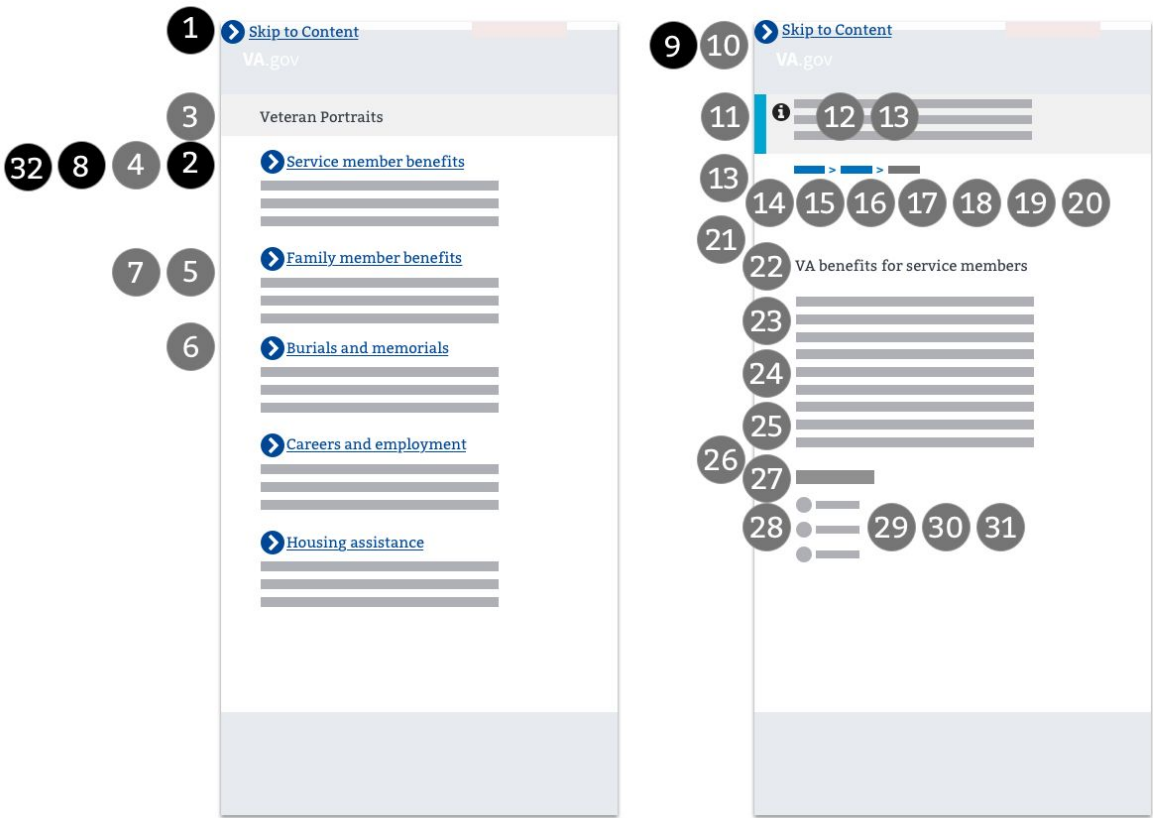
Table - Screen Reader Navigation Methods

Response	% of respondents
Navigate through the headings on the page	67.7%
Use the Find feature	13.9%
Read through the page	8.1%
Navigate through the links of the page	7.1%
Navigate through the landmarks/regions of the page	3.2%

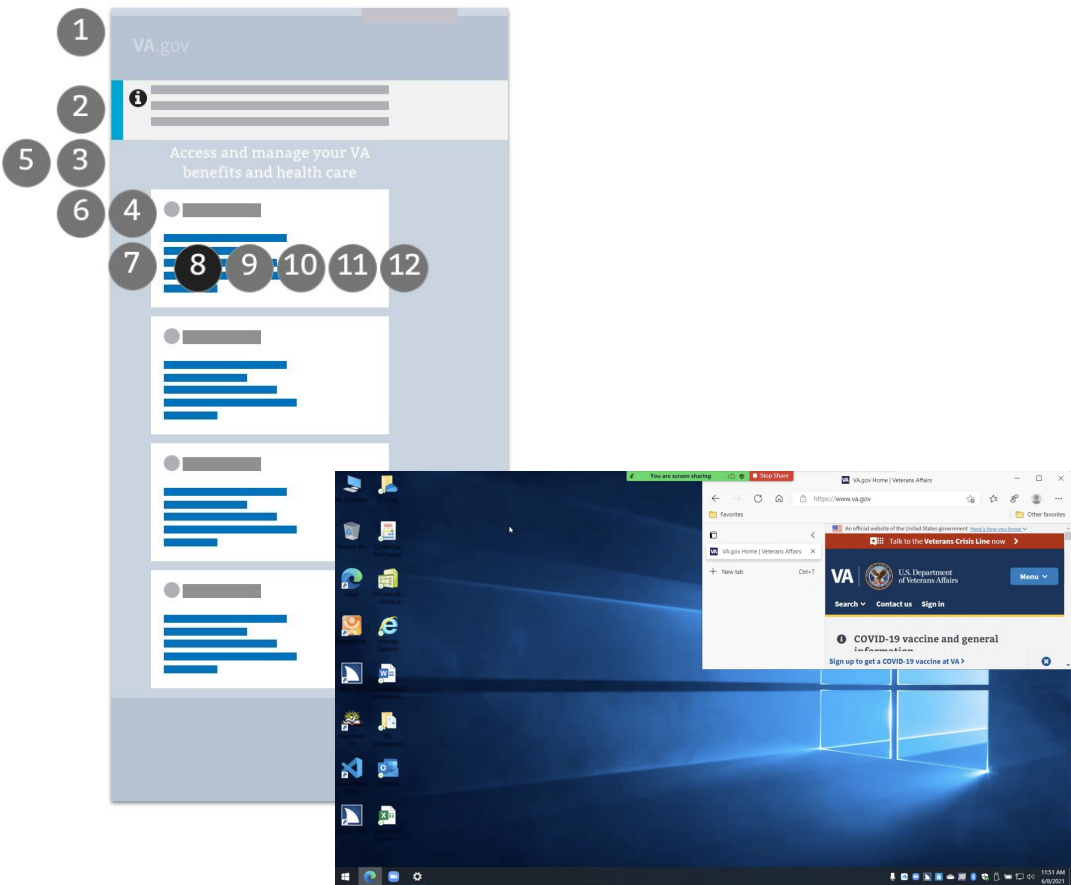
According to a recent [Webaim survey](#), when trying to find information on a lengthy web page, screen reader users navigate via headings most often. We observed many combinations of navigation methods in our study, including the use of ‘skip to content’ which screen readers use sometimes (>28%), always(>16%) or often (>14%).

P1. Completely blind participant using JAWS on desktop

Attempt #1:
Using “Skip to content” on homepage



Attempt #3:
Navigating by heading level from top of the page



“Do you understand one thing I said? I typed in VA.gov a while ago and this is not the page that it took me to. So, I went back a page. I don’t know what you see but according to my screen reader, I haven’t been to this page before. I didn’t hear any of this stuff previously”

“Why in heaven's name did it take me to the middle of the page?” –P1

2. When I look for location information for a place that I need to visit physically, I use my search engine either by dictating or typing in my search parameters.

2.1 - I already know my VA so I would likely only do this for unfamiliar locations

2.2 - I prefer to dictate location searches on my phone because it's quicker and easier

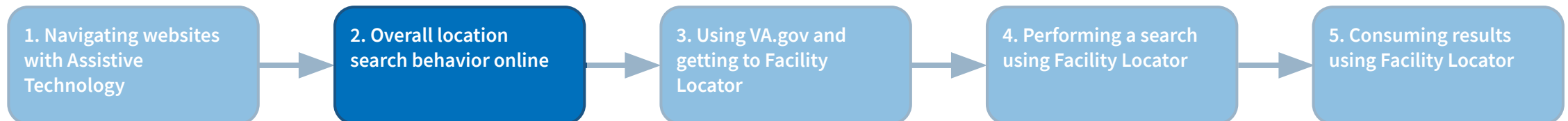
2.3 - I use JAWS on my desktop for more complex searches or tasks

2.4 - Search engine results info is usually all I need, next I call or get directions

2.5 - I trust a search engine result when I hear VA.gov is the source

2.6 - I wish I could see hours and services of VA facilities on Google search results

2.7 - Sometimes I do see hours but they don't make sense to me



P10: “I know there’s a location finder... but I don’t know where that is. I don’t even know what that would be called. You’re hoping somebody labeled it right.”

The image displays two screenshots of the VA facility locator website, annotated with numbers 1 through 25 to highlight usability issues.

Left Screenshot (Search Results):

- 3: Browser tab title "VA Texas - Locations".
- 4: Browser address bar showing the URL.
- 5: Search bar input field.
- 6: Search results summary: "About 5,780,000 results (0.81 seconds)".
- 7: Search results list item: "Texas - Locations - VA.gov".
- 8: Search results list item: "San Antonio: South Texas Veterans Health Care System. Temple: Central ... Waco: Doris Miller Department of Veterans Affairs Medical Center. Outpatient Clinic ...".
- 9: Search results list item: "Facilities in Texas - Locations - VA.gov".
- 10: Search results list item: "Station ID Facility Phone".
- 11: Search results list item: "10N17 VISN 17: VA Heart of Texas Health Car... 817-652-1111".
- 12: Search results list item: "Station ID Facility Phone".
- 13: Search results list item: "580 Michael E. DeBakey VA Medical Center 713-791-1414 Or 713-791-1414".
- 14: Search results list item: "View 116 more rows".

Right Screenshot (Main Page):

- 1: Search bar input field.
- 2: Search bar submit button.
- 3: Browser tab title "VA Texas - Locations".
- 4: Browser address bar showing the URL.
- 5: Search bar input field.
- 6: Search bar submit button.
- 7: Search bar submit button.
- 8: Search bar submit button.
- 9: Search bar submit button.
- 10: Search bar submit button.
- 11: Search bar submit button.
- 12: Search bar submit button.
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- 21: Search bar submit button.
- 22: Search bar submit button.
- 23: Search bar submit button.
- 24: Search bar submit button.
- 25: Search bar submit button.

3. When I search for things on VA.gov, I have trouble finding what I am looking for.

3.1 - The homepage is difficult to navigate and I can't orient myself easily [[homepage findings](#)]

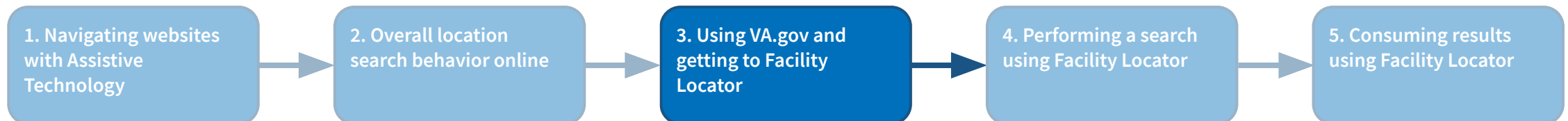
3.2 - Global searches don't produce relevant results

3.3 - I get routed to too many different pages

3.4 - If I find something useful, I don't know how to retrace my steps later

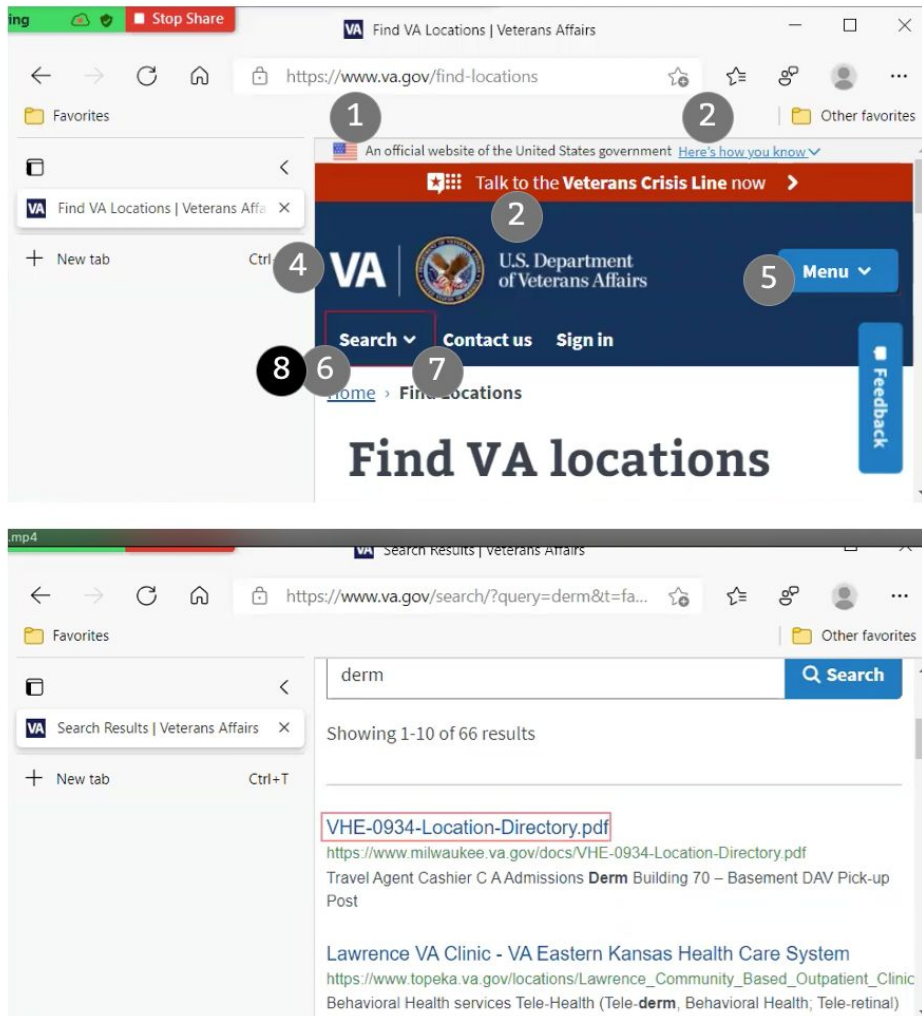
3.5 - I encounter too much information and I get overwhelmed

3.6 - Location searches result in a VA list [teamsite page] that I have to Google individually



4/7 Veterans used global search to complete tasks

P1 - Attempt #6: On Facility Locator



P1 is directed to Facility Locator to try Task 2 and ‘reads the page’ and notices the global search first. He asks if he can put dermatologist in it. He’s directed to “do what comes naturally”. He types in ‘derm’ but doesn’t get relevant results so he tries going back to Facility locator and reads further down the page. Describes feeling more oriented when he hears the page title in the breadcrumb but then stops:

“I’m confused. You took me to find a location but you are actually asking me to find something specific. It’s confusing because it is about finding a VA location”

4/7 Veterans used global search to find a location or dermatologist.

4. I didn't know Facility Locator existed, but now that I do, I encounter some obstacles that would deter me from wanting to use this tool for searching.

4.1 - There are too many things to listen to before I can start my search

4.2 - There are too many requirements to fill in and (4.3) I don't know what they mean

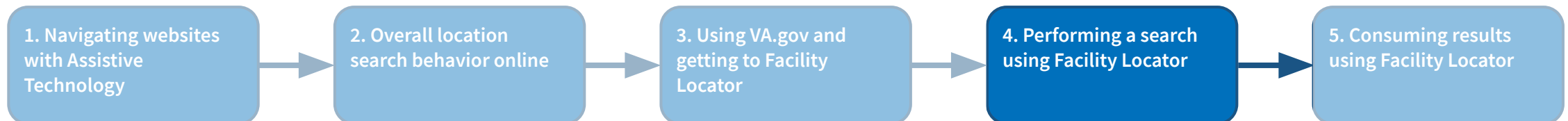
4.4 - I didn't put in the right requirements, so it tells me there's an error

4.5 - I want to choose by something that I'm familiar with, like clinics or hospitals

4.6 - The service type combo box doesn't work

4.7 - If I'm in a crisis, I won't want to struggle with this page

4.8 - I prefer to just enter searches into one simple search box

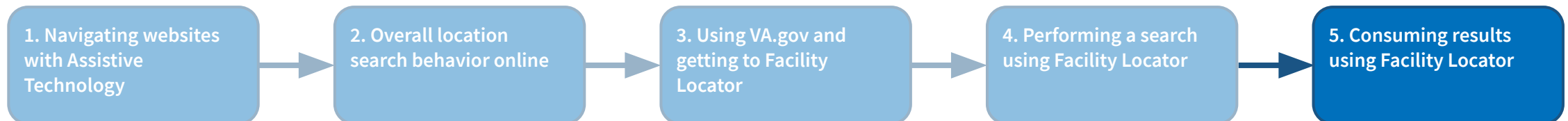


“It asked for 3 different types of requirements but when I checked it out, it said there were none in my location because I put the wrong requirements in for it.. Although there is a clinic here. I put the wrong definition in for the medical center because it's only a clinic... yea... I don't know the definition of what those boxes mean... I don't know what I checked on. I thought I checked the right ones. Obviously, I had the wrong definition of whatever those words were.”

–P2

5. Consuming Facility Locator search results was also tricky.

- 5.1 - I did a search but the screen reader didn't tell me that there weren't results
- 5.2 - I got results but I don't know what the letter and number combination means
- 5.3 - I don't hear a way to get directions to these locations
- 5.4 - It's not clear to me what is a phone number or other piece of information
- 5.5 - I don't know what 'limited services and hours' means
- 5.6 - I didn't realize that I was being taken to Google Maps, I like to know this
- 5.7 - If I leave VA.gov I expect to go to a different tab, otherwise don't open a new tab
- 5.8 - I didn't see a map but I usually don't use them because they aren't accessible



Recommendations

Recommendations - Broad

- Establish a page hierarchy for pages and ensure that top navigation methods follow it.
 - Group links and content with logically ordered heading levels to create an understandable hierarchy of the page.
 - Tell me what a page is about with a clear heading 1 level when navigating between pages.
 - Create regions on every page so that I can navigate quickly between areas.
 - Make sure 'skip to content' takes me to the main content on the page.
- Give me an edit box that is easy to find because I like an easy way to search.
- Provide the purpose and destination in link text so I know what to expect when I click on a link.
- Name buttons and links with the keywords that I'm likely to search for like 'menu', 'locations'.
- Name states of components descriptively like 'menu open' so I don't wonder what just happened
- Don't make me know how to spell things

Appendix

Appendix

This presentation is a condensed version of the [full Research Findings report](#) on GitHub.

Additional, [homepage specific findings](#) can also be found in GitHub.

- [Research Plan](#)
- [Conversation Guide](#)

Josh Kim and Angela Fowler provided guidance during all aspects of planning this study (see [Inclusive Research Guidelines v2.0](#) for written documentation) as well as technical support and assistive technology expertise during every session.