

VA



U.S. Department  
of Veterans Affairs

# VA.gov Profile Editing Evaluation

Discovery Readout

# Research Goals

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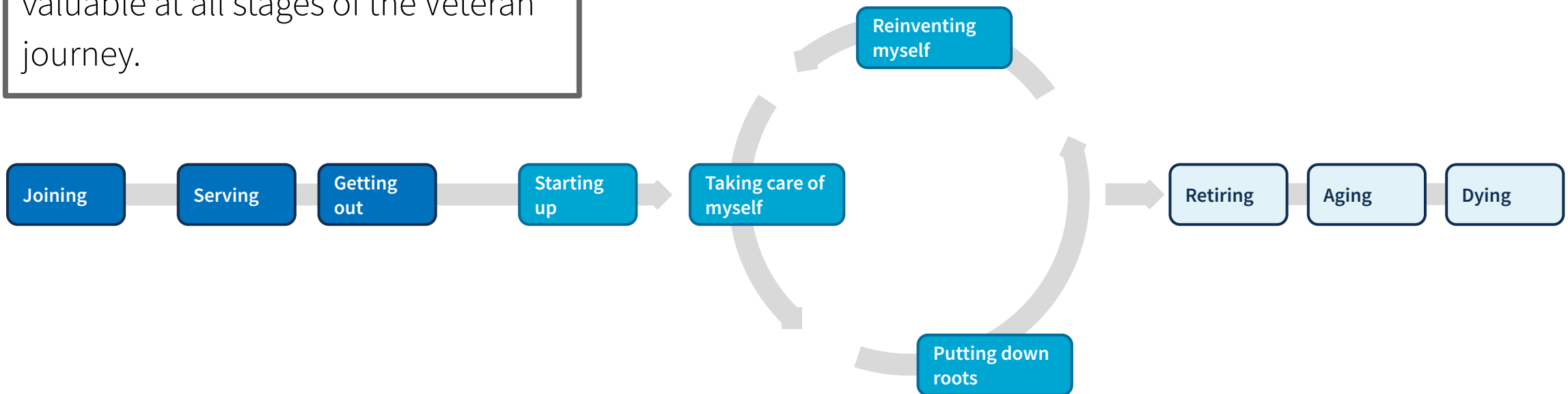
# Research Goals

Our team has been interested in exploring a “one thing per page” pattern for VA.gov forms for the last year. This pattern is known to improve the usability for complex forms by reducing cognitive load, improving error messages, reducing load times and more.

Using this pattern in profile would require a major redesign, so our we conducted this research as a first step to identify any usability problems that might be solved by this approach.

# How this research maps to the Veteran journey

The VA.gov profile is a self-service tool for Veterans to manage their personal information, which is valuable at all stages of the Veteran journey.



For a fully detailed Veteran journey, go to

<https://github.com/department-of-veterans-affairs/va.gov-team/blob/master/platform/design/va-product-journey-maps/Veteran%20Journey%20Map.pdf>

Serving and separation

Living civilian life

Retiring and aging

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# Research Goals

- Learn whether or not our edit-in-place pattern presents major usability problems for people with cognitive disabilities on mobile devices.
- Identify any other usability hurdles in profile.

For a fully detailed list of research questions supporting these goals, review the [complete findings report](#)

# OCTO-DE goals that this research supports

Supported

Not supported



# Hypothesis to be tested

- People will be able to easily update 1-2 field forms (such as phone number) with in-line editing.
- People will encounter usability hurdles with more complex forms/flows such as address validation.
- People will not encounter significant usability hurdles when updating their notification settings.
- If people can edit their profile without major challenges, we can be more confident our in-line editing pattern works well for all Veterans.

# Methodolgy

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# Method

We conducted this research through semi-moderated sessions over Zoom. We asked participants to update profile information in a test account on VA.gov, and had them review [a bare-bones HTML prototype in CodePen](#) as time allowed.

We chose this method so we could:

- include people who use assistive technology in our study (this is not possible with image-based prototyping tools like UX Pin)
- observe how people would go about editing profile information without specific guidance or instruction.
- ask follow-up questions to increase our understanding of their experience once they finished

# Participant Demographics

- 11 Veterans
- 5 male, 6 female
- 7 Black, 1 Hispanic, 1 Asian, 2 White
- 10 assistive technology users: 8 used magnification or font resizing, and 2 used screen readers
- 10 identified as having a cognitive or functional impairment
- 8 joined the session from a mobile device

For more details about our participant demographics, review the [complete findings report](#)

# Marginalized groups we didn't speak with

Findings may not include the perspectives of the following underserved Veteran groups :

- Expats
- Members of the LGBTQ+ community
- Beginner AT users
- People who use the following assistive technology:
  - Speech Input Tech (Siri, Dragon)
  - Hearing Aids
  - Sighted Keyboard
  - Captions
  - Switch Device
  - Braille Reader

We recommend studies with these underserved groups in the future.

2022-09 Profile Editing Evaluation																		
final # of participants		13	# of AT users							10	# of no shows							2
Category	%	Target	Study	1	2	3	4	5	6	7	8	9	10	11	12	13		
Veterans		Based on current VA statistics																
Age 55-64+	50.00%	7	4	0	0	0	0	1	0	0	0	1	1	0	0	1		
Cognitive Disability	50.00%	7	10	1	1	1	1	1	1	1	1	1	1	N	N			
Mobile user	50.00%	7	8	1	0	1	0	0	1	1	1	1	1	0	0	1		
Rural	25.00%	4	4	1	0	0	0	1	0	0	1	0	0	0	N	1		
No degree	25.00%	4	3	0	0	0	0	0	1	0	1	1	0	0	N	0		
Other than honorable	21.00%	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Immigrant origin	17.00%	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Women	10.00%	2	6	1	0	1	1	0	1	1	0	0	1	0	0	0		
Expat (living abroad)	0.40%	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Race		Based on VA's projected statistics																
Black	15.00%	2	7	1	1	1	0	0	1	1	1	0	1	N	N	0		
Hispanic	12.00%	2	1	0	0	0	1	0	0	0	0	0	0	0	0	0		
Biracial	3.90%	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Asian	3.00%	1	1	0	0	0	0	0	0	0	0	1	0	0	0	0		
Native	0.30%	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
LGBTQ+		LGBTQ+ Veterans are 5 times as likely to have PTSD																
Gay, lesbian, or bisexual	--%	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Transgender	--%	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Nonbinary, gender fluid, ge	--%	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Assistive Tech (AT)		Ask an ally specialist to help you complete this. Targets are for a ge																
Beginner AT User	50.00%	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Experienced AT User	50.00%	5	9	1	1	1	1	1	1	1	1	0	1	0	0	1		
Desktop Screen Reader (SF	20.00%	2	3	0	0	0	0	1	0	0	0	1	0	0	N	1		
Mobile Screen Reader (SR)	20.00%	2	1	0	0	0	0	0	0	0	0	0	0	0	0	1		
Magnification/Zoom	20.00%	2	8	1	1	1	1	0	1	0	1	1	1	0	0	0		
Speech Input Tech (Siri, Dr	20.00%	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Hearing Aids	20.00%	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Sighted Keyboard	10.00%	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Captions	--%	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Switch Device	--%	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Braille Reader	--%	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

[Participant Tracker on Google Sheets](#)



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# Research Findings

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# Key findings

1. 9 of 11 participants were able to update a VA.gov profile with in-line editing with relative ease.
2. 5 of 11 participants experienced some minor confusion during the address validation process.
3. In the contact information section, we observed some usability hurdles that slowed multiple people down.
4. Participants were not bothered by encountering multiple alerts when updating contact information, though it took some longer than others to comprehend the information.
5. 6 of 11 participants were disrupted by having to leave the notification settings page to add a mobile number.
6. 5 participants missed the “Board of Veteran’s Affairs Hearing Reminder” notification name, which led to a misunderstanding about what the notification was for.
7. 9 of 11 participants, including screenreader users, found in-line editing and a “one thing per page” approach to be equally usable.

# 1) 9 of 11 participants were able to update a VA.gov profile with in-line editing with relative ease.

All participants intuitively understood how to go from “read-only” to “edit” mode, to complete forms, and to save their changes.

All but 1 participant easily navigated the longer address form. The 1 participant who did not had mistakenly checked the “I live on a United States military base” without realizing it and got confused by the corresponding form fields.

Notably, the “alert followed by a modal” pattern that can occur in a couple of edge-case flows did not cause confusion or prevent any participant from successfully completing their task.

## 2) 5 of 11 participants experienced some minor confusion during the address validation process.

All participants triggered the address validation alert (some naturally, others with guidance), and were able to make a selection and move forward. However, the entire process was not intuitive for 5 participants, as follows:

- 2 participants who triggered the “confirm your address” validation message attempted to move onto another section without confirming their address.
- A screenreader participant encountered and used the edit button before the “use this address” and “cancel” buttons, unaware of all possible options.
- 3 participants did not see the edit buttons and weren’t sure how to edit their entry.

Home  
This is where you currently live.

**⚠ Please confirm your address**

We couldn't confirm your address with the U.S. Postal Service. Please verify your address so we can save it to your VA profile. If the address you entered isn't correct, please [edit it](#) or choose a suggested address below.

You entered:

☐ [Edit Address](#)

Suggested Addresses:

☒

[Update](#)

[Cancel](#)

### 3) In the contact information section, we observed some usability hurdles that slowed multiple people down.

- 4 participants didn't realize their update hadn't finished saving, and quickly moved onto another section, triggering the "you are currently editing" modal.
  - 2 of these participants had also triggered the address validation alert without realizing it, and then confirmed the update without reading the alert content.
  - It is possible they were rushing more than they normally would if they had been completing this task out of a real need to update contact info.
- Some button labels made 5 participants feel uncertain about which button to select to move forward with their task.
- 3 participants, 2 of which were blind screenreader users, missed the remove button and expected to be able to remove contact information by clicking "Edit", clearing the form field, and saving an empty form. All had to be guided by the moderator to find the remove button.



“If I did [hear the remove button read aloud], I forgot it. I would’ve been stuck there for a minute because to me, if I edit [the form] and blank it out, and update it, that to me is the same as removing it.” - P11, screenreader user

## **4) Participants were not bothered by encountering multiple alerts when updating contact information, though it took some longer than others to comprehend the information.**

Though our team has hypothesized encountering multiple alerts when updating contact information would be frustrating, we observed the opposite during these sessions. Even when people triggered an address validation flow that was immediately followed by 2 different modal messages, they didn't express any frustration about the modals or alerts.

- No participants expressed annoyance or frustration at encountering multiple alerts in a brief period of time.
- 2 participants took more time than the other 9 participants to comprehend the content. They had to re-read the information in alerts with longer content before feeling confident about moving on.

## 5) 6 of 11 participants were disrupted by having to leave the notification settings page to add a mobile number.

It made sense to participants that they needed to add a mobile number before updating text message settings. They intuitively clicked the “Add a mobile number to your profile” link in the alert, which sent them directly to the mobile phone number section on the contact information page.

- Once on the contact page, the user flow requires the user to add a mobile number, and follow a link in the confirmation message to return to notification settings.
- 3 participants did not realize the mobile phone number section was in view, or see the focus halo on the edit button. They spent time scrolling up and down the page looking for the mobile number field.
- 6 participants did not see the “manage text notifications” link in the save confirmation alert. Some assumed they were now opted into notifications and didn’t need to do anything else.

“Maybe if it jumped out at me, or had a big stop sign or something I probably would notice, but had you not said something, I would have missed it and thought “Okay, I’m good.” - P1

## 5) 6 of 11 participants were disrupted by having to leave the notification settings page to add a mobile number.

A participant with cognitive challenges experienced a 5 second external disruption after landing on the page. In the session, we observed that they could not recall what they were supposed to do after they focused back on the research session. Then, they went back and forth 3 times between the two pages to try to figure out what to do.

[Download the redacted video clip](#) and watch this participant's experience of updating their notification settings.

## 6) 5 participants missed the “Board of Veterans’ Affairs Hearing Reminder” notification name, which led to a misunderstanding about what the notification was for.

These participants assumed the notification was for “Applications, claims, decision reviews, and appeals”, which is the name of the notification group.

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**Applications, claims, decision reviews, and appeals**

**Board of Veterans' Appeals hearing reminder**

☒ Notify me by text

☐ Don't notify me

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**Note:** We have limited notification options at this time.  
Check back for more options in the future.

## 7) 9 of 11 participants, including screenreader users, found in-line editing and a “one thing per page” approach to be equally usable.

We built a simple [CodePen prototype representing a “one thing per page” approach](#) for contact information, and asked users to review it as time allowed at the end of sessions (we ended up having time in all 11 sessions).

No one commented on noticing they were going to a new page or staying on the same page without being prompted. Once prompted, 8 participants stated they had not noticed they were going to a new page in the prototype, and shared their thoughts about the different approaches:

- 2 participants stated they preferred the one-thing-per-page approach of the prototype
- 4 participants preferred to be on one page
- 5 had no preference

# Secondary findings

- 4 participants had a hard time reading content due to the font size.
  - 8 of the 11 participants in our study require some kind of font resizing or magnification to use the internet.
  - 4 of them made comments related to legibility because of our font style (size and/or color). Larger, bolder fonts were easier for them to read.
- The lack of a save or submit button on notification settings presented a minor problem for 2 participants.
  - A screenreader user shared concerns about auto-saving leaving users with no way to clear or cancel a selection if they had done something by mistake.
- The two screenreader users we talked to didn't encounter any major points of confusion in profile, and felt it was generally easy to use.
- One participant with cognitive considerations struggled to complete tasks that required multiple pages or modal disruptions.



# Findings related to the research process

# Research process wins

- CodePen is a solid way to prototype, and is more inclusive than image based solutions
- Having a high level of specificity in our screener questions got us more of the participants we wanted to speak with
- Accessibility Specialists in the session helped us troubleshoot issues along the way
- Surfacing research goals in the backchannel thread before each session, and specifically asking for top 3 observations immediately following each session helped increase observer engagement

# Research process opportunities

- We needed to schedule more time for screenreader users
- We could've been even more specific (glasses count as magnification)
- We weren't able to meet our target for the number of screen reader users we wanted to speak to

# Recommendations

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# Recommendations

**For primary editing functionality, continue using the single page editing pattern that is in place today.**

- All participants were able to use our existing pattern to update their information with no major hurdles.
- We didn't see a significant improvement in the ability for people to update their information in the prototype over our website. Those who found the prototype easier commented on its simplicity, but the prototype didn't include realistic alerts/warnings that would need to be in place on a live website.
- At this time, we don't have enough data to suggest that one-thing-per-page would be easier for people with cognitive or vision considerations. If we want to test this in the future, we should build out a more realistic prototype to more confidently evaluate how one-thing-per-page impacts usability.

# Recommendations

## **Improve the user experience for buttons in profile.**

- 5 of 11 people experienced hesitation and/or confusion over which button to choose, which demonstrates here are opportunities to be more consistent with our language and make options clearer to Veterans.
  - 2 expected “save” instead of “update” - consider reevaluating why we chose “update”
  - Reevaluate the labels on button pairs in the cancel confirmation modal, and the remove modal
- Both screenreader users missed the “remove” button and didn’t expect it to be there. We should consult with our accessibility specialists to learn how we might improve this experience.

# Recommendations

## **Review analytics around our “currently editing another section” alert.**

- 4 of 11 participants triggered this by quickly moving on to a new section before an update had finished saving. This caused some confusion, as well as a rushed response to the address validation prompts.
- If analytics show that a similar percentage of users encounter this alert in sessions (~36%), we should consider how we might prevent this from happening in the first place.

## **Explore how we might simplify the address validation flow, and how to leverage analytics to see if quantitative data support what we observed in the study.**

- The current UX wasn't totally intuitive for 5 out of 11 people, and we already know it needs some accessibility improvements. There's clearly room for a better UX with this flow.
- Address validation analytics could help us determine if what we saw in the study is indicative of a larger pattern.
- It's possible some of the issues we saw are due to the facilitation and nature of being in a moderated research session.

# Recommendations

## **Explore solutions to improve the user experience of managing notification settings when no contact information is on file.**

- It confused more than half of participants to have to leave the page, and a few would have abandoned the task if they were not in a moderated session.
- As we add more channels for notification settings, this will become more critical and complicated.

## **Improve the visibility of the notification name.**

- People missed the name of the notification and didn't understand what they were opting in to (or out of, depending on the session).



# Recommendations

## **Keep the extreme “short term memory loss” use case at the forefront for future design iterations.**

- Observing P9’s experience of profile was a powerful reminder of the obstacles some Veterans have to overcome to use VA.gov.
- It’s worth considering how we might learn more about this population to better understand their needs, and use what we learn to inform our work as we iterate on profile.
- [Download the redacted video clip](#) to observe P9 struggling to understand the next step to update their notification settings.

# Next Steps

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# My next steps

- Prioritize recommendations into sprint work
- Present findings

# Your next steps

- Stress test your products with folks in the greatest need first
- Include these participants in the primary criteria for recruitment in your next study:
  - Veterans who use assistive technology
  - Veterans over 55+
  - Veterans with cognitive disabilities

# Appendix

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# Research documents

- [Research plan](#)
- [Conversation guide](#)
- [Codepen prototype](#)

# Tools used for synthesis

- [Interview transcripts](#)
- [Mural board](#)