Mobile Phone Use and Optimization in a Longitudinal Web Panel with a Lenghthy Veteran Questionnaire – The Veteran Metrics Initiative (TVMI) Study

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About the TVMI Study
• Since 2001, roughly 3 million service members have separated from the US military. In the next 4 to 5 years, an additional 1 million are expected to leave military service.
• The process of transitioning to civilian life can be particularly complex for veterans with mental and physical health problems, such as post-traumatic stress disorder (PTSD), traumatic brain injury (TBI), or extremity trauma, which often impose additional burdens on coping skills and daily functioning.
• Research indicates that some veterans contend with a multitude of complex health problems that hinder adjustment and present the long challenges.
• The longitudinal web survey reassesses the same veterans at six-month intervals for three years to evaluate how veterans' well-being and program use changes throughout the transition and reintegration process.

Study Methodology
• Longitudinal Web survey conducted every 6 months for 3 years.
• Sample list drawn by VADRF of Active Duty and National Guard/Reserves separating/deactivating from Active Duty in May-August 2016. (Pre-alert letter and three invitations were mailed to a census of 48,976 veterans.)
• Baseline sample was recruited by mail (n=3,522 completes, 22.9% FRA).
• Follow-up waves are recruited by email, text, and mail. The entire baseline sample is invited to participate in each wave.
• Takes average 40 minutes to complete web survey.
• TYSS Study Website and Helpdesk provides information and means to update contact information.
• Robust incentives provided immediately after survey completion (shown on-screen and sent by follow-up email or text immediately after completion).

Web Survey is Optimized for Smartphones
• Device type is captured by web survey software.
• Survey requires unique LOGIN ID to enter.
• Survey waves control after each question, allowing the participant to return to survey where they left off.
• The need for scrolling right or down, or resizing the smartphone screen is reduced or eliminated when possible.
• Respondents are allowed to skip questions, but see a warning on screen.
• Less than 2% miss or skip a question.

Smartphone Use to Complete the Web Survey
• Proportion who terminated survey was similar by device.

<table>
<thead>
<tr>
<th>Wave</th>
<th>Using Desktop</th>
<th>Using Smartphone</th>
<th>Wave</th>
<th>Using Desktop</th>
<th>Using Smartphone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wave 1</td>
<td>6.8%</td>
<td>6.8%</td>
<td>Wave 2</td>
<td>2.5%</td>
<td>3.9%</td>
</tr>
<tr>
<td>Wave 3</td>
<td>1.5%</td>
<td>3.4%</td>
<td></td>
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</tr>
</tbody>
</table>

• Number of questions skipped or missed was similar by device (less than 2%).
• Average minutes to complete the web survey was similar by device.

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<tr>
<th>Wave</th>
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<th>Using Smartphone</th>
<th>Wave</th>
<th>Using Desktop</th>
<th>Using Smartphone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wave 1</td>
<td>43.8 minutes</td>
<td>42.2 minutes</td>
<td>Wave 2</td>
<td>42.7 minutes</td>
<td>43.1 minutes</td>
</tr>
<tr>
<td>Wave 3</td>
<td>39.1 minutes</td>
<td>40.1 minutes</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Differences by Device – Desktop/Laptop vs. Smartphone

<table>
<thead>
<tr>
<th>Gender*</th>
<th>Race/Ethnicity*</th>
<th>Employment</th>
<th>Education*</th>
<th>Branch/Component*</th>
<th>Paygrade*</th>
<th>Discharge Type*</th>
<th>Health Conditions*</th>
<th>Living Situation*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wave 1</td>
<td>Wave 2</td>
<td>Wave 3</td>
<td>Wave 1</td>
<td>Wave 2</td>
<td>Wave 3</td>
<td>Wave 1</td>
<td>Wave 2</td>
<td>Wave 3</td>
</tr>
</tbody>
</table>

Conclusions
• It is important to allow participants to complete web surveys on a smartphone. Web surveys should be optimized to work well on smaller screens.
• The survey look and feel is very similar on smartphone vs. desktop.
• The survey does not take more time to complete by smartphone.
• All Waves 1-3, smartphone users completed the web survey in fewer days than desktop users.
• Recruitment protocol by email, text, and mail - same method was used for all participants.
• The survey was similar by device.

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