The Role of Automated SMS Text Messaging in Public Opinion Research

Sunday, May 17th, 2015
10:15 am

Presented at:
The American Association for Public Opinion Research 2015 (AAPOR) Annual Conference
Hollywood, FL

Presented by:
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Co-Author
Heidi Grunwald, PhD – Managing Director
The Study

- The **Cold Text** - an attempt to collect data from the general public with no prior contact, through automated SMS text messages
  – [How] Will people respond?

- Expected low RR (unfamiliar method)
Background and Rationale

• Problems with Traditional Data Collection:
  – Response rates dropping
  – Coverage problems
  – High costs
• In the U.S. 93 mobile phone subscribers per 100 people
• Prior research on text surveys… but **no data collection with “cold text”**
The Study and Sample

• **FOCUS:** Perception and Uses of Local Park
• Stratified random sample of cell phone owners across 6 zip codes surrounding the Wissahickon Valley Park in Philadelphia
Data Collection

• 1st text sent Sat, Nov 15th, 2014 (10 am)
  – “Hi from Temple’s Institute for Survey Research! We have a few Qs for you, participation is voluntary – text QUIT anytime or contact Nina Hoe at 215.204.4441”

  – “Would you answer a few Qs via text about Wissahickon Park? (You’ll be entered to WIN an iPad mini) Reply YES or QUIT”

• 8 Questions
• Reminder text sent Mon, Nov 17th (5 pm)
• Open for 1 week
• Texts sent from local phone # (215)
Research Questions

1. **How** will people respond to a “cold text” survey?
2. **How long** after receiving a cold text will people respond?
3. **In what ways** will people respond to a cold text?
4. What are **reasons that people do not respond**?
5. **Who** will participate?
Result #1 – Survey Response Rate

• Using the AAPOR RR1 calculator, the study response rate was 3.6%

\[ \text{Cold Text Study: } RR1 = \frac{36}{36 + 34 + 172 + 758} = 3.6\% \]

• 7% of recipients participated in the survey to some extent
• 17.2% of recipients actively “Unsubscribed” from the study

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<tbody>
<tr>
<td>Yes</td>
<td>70</td>
<td>7%</td>
<td>Fully Completed Survey</td>
<td>36</td>
<td>3.6%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Partially Completed Survey</td>
<td>34</td>
<td>3.4%</td>
</tr>
<tr>
<td>No</td>
<td>930</td>
<td>93%</td>
<td>Unsubscribed</td>
<td>172</td>
<td>17.2%</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Did Not Respond</td>
<td>758</td>
<td>75.8%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>1,000</td>
<td>100%</td>
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<td>1,000</td>
<td>100%</td>
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• 24.2% engaged with the survey in some way
Result #2 – Response Timing

- 88% responded on the same day as the first text or the reminder text
- 47% responded within 1 hour of receiving a text
- 66% responded within 2 hours
- 72% responded within 3 hours
“Would you answer a few Qs via text about Wissahickon Park? (You’ll be entered to WIN an iPad mini) Reply YES or QUIT”

- The survey registered responses from 242 individuals (24.2% of all recipients)

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<tbody>
<tr>
<td>(1) correct consent</td>
<td>“Yes”</td>
<td>52</td>
<td>22%</td>
</tr>
<tr>
<td>(2) incorrect consent</td>
<td>“Sure”</td>
<td>6</td>
<td>2%</td>
</tr>
<tr>
<td>(3) correct non-consent</td>
<td>“Quit”</td>
<td>152</td>
<td>63%</td>
</tr>
<tr>
<td>(4) incorrect non-consent</td>
<td>“No”</td>
<td>20</td>
<td>8%</td>
</tr>
<tr>
<td>(5) other/consent intent unclear</td>
<td>“What is this?”</td>
<td>12</td>
<td>5%</td>
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- 15% “incorrectly” responding
## Result #4 – Non-Response Follow-Up

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<tbody>
<tr>
<td>Did not understand the source or reason</td>
<td>18</td>
<td>30%</td>
</tr>
<tr>
<td>Busy or occupied</td>
<td>16</td>
<td>26%</td>
</tr>
<tr>
<td>Did not want to participate</td>
<td>7</td>
<td>11%</td>
</tr>
<tr>
<td>Forgot about it</td>
<td>6</td>
<td>10%</td>
</tr>
<tr>
<td>Thought it was &quot;spam&quot;</td>
<td>5</td>
<td>8%</td>
</tr>
<tr>
<td>Unfamiliar with the topic/topic not relevant</td>
<td>5</td>
<td>8%</td>
</tr>
<tr>
<td>Do not text</td>
<td>4</td>
<td>7%</td>
</tr>
<tr>
<td>Deleted it</td>
<td>3</td>
<td>5%</td>
</tr>
<tr>
<td>Do not have texting plan/pay for individual texts</td>
<td>2</td>
<td>3%</td>
</tr>
<tr>
<td>No direct or immediate benefit</td>
<td>1</td>
<td>2%</td>
</tr>
<tr>
<td>(Asked for call back)</td>
<td>1</td>
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Result #5 – Survey Participants

• Race
  – 50% White
  – 31% Black or African American
  – 9% Didn’t want to say
  – 6% More than 1
  – 3% Hispanic or Latino

• Age:
  – Median = 46
  – Mean = 45.3, S.D. = 13.5

• Location
  – 43% Inside target area
  – 45% Outside target area
  – 12% Unspecified
Limitations

General
1. (Same limitations as RDD cell phone studies)
2. Limit of 160 characters
3. Participants could not “skip” questions
4. Can only reach literate citizens
5. User issues with survey platform create concerns for ethics of consent and data reliability
What We Learned

1. People will (to some extent) respond to a cold text – this method has promise!
   – Potential for increasing cost-effectiveness in survey research (approx. 1/10\textsuperscript{th} of cost of RDD)
2. People respond sooner rather than later
3. New survey platform is challenging for users
4. Local context may create a barrier
   – Non-response bias related to survey topic, is serious concern
What We Learned (Cont.)

5. New concerns replace old – not cost or age (as discussed in previous research), but origin of text and feeling “too busy”

6. Minorities and older citizens will participate

7. Mobile users are mobile!
Areas for Future Research

• Test same method in a non-local context
• Use full name = “Temple University”
• Quell fears up front
  – “your phone number was randomly selected”
  – “please feel free to respond at your leisure”
• Multiple reminder texts
• Follow-up with drop-offs

• Excited to continuing working in this area!
Questions?
Email
nina@temple.edu

Thank you.