Sign me up!
A model and field experiment on volunteering

Erte Xiao
_Carnegie Mellon University_

Daniel Houser
_George Mason University_

18 October, 2013
Our goal

• Design a failsafe reward-based approach that creates *positive interest* in volunteering.
Why “failsafe”?

• Volunteering frequency is substantially lower than exercise.
  – 80% of adults volunteered less than 15 hrs in 2012

• When regular volunteering is rewarded, people may fail to comply.
People may infer preferences (positive or negative) from previous action (Festinger and Carlsmith, 1959; Benabou and Tirole, 2011)

Failure to comply with a reward may decrease intrinsic interest in the \textit{rewarded} task.
Behavioral Approach to Attitude Change

• Consistency theory is also the foundation of our approach.
Two-stage Mechanism
(e.g. Charness & Gneezy, 2009)

Stage 1
Target task (once)
(C&G: exercising)

Stage 2
Target task (repeated)
(C&G: high compliance with exercising)

- Mechanisms that incentivize only the target activity may be ineffective in environments with low compliance (we test this)
- Our approach: the target activity is not rewarded in the second stage. This feature makes it “failsafe”
Proposed Compound Task Approach

Stage 1
A compound task:
- Target task (volunteering)
- Complement task (writing)

Stage 2
- Complement task (writing)

Succeed
- I must like T (not for money)

Failed
- Reinforce interest in T

Failsafe mechanism: Regardless of compliance in the Stage 2 complement task, people adopt a positive attitude toward T
Signup rates measure intrinsic interest
Volunteering
Experiment

• Baseline: no reward
• Four reward mechanisms
  – Stage 1 only (Volunteering + Writing): VW1
  – Three two-stage mechanisms that require repeated Stage 2 activities:
    • Writing only (W)
    • Volunteering only (V)
    • Volunteering + Writing (VW)
VW1 Treatment

• Stage 1 one time compound task:
  $25 for volunteering & email two messages about any benefit of volunteering in one week.
W, V and VW treatments

Following the $25 week, participants were rewarded by $50 to

W: write (email) three times a week in each of the following four weeks. (Failsafe mechanism)

V: volunteer four times in four weeks.

VW: volunteer four times (in total) and write two messages per week in four weeks.
Hypotheses

People who comply with Stage 1,

• **V** and **VW**.
  – Compliance in Stage 2 ($50 activities) leads to positive effects on signup rates (and volunteering activities). (Charness and Gneezy, 2009).
  – Non-compliance in Stage 2 results in detrimental effects on signup rates (and volunteering activities).

• **W** promotes positive attitudes towards signup rates (and volunteering activities) regardless of Stage 2 compliance.
### One Year Time Line

*(9/11/2012-9/27/2013)*

|------|------------------|-------|------|-----------|
| Recruiting day: **Stage 1:**  
25 reward for the one time compound task (Incentive treatments) | Last day of intervention | Email signup survey | Survey volunteering participation |
Results
Compliance rate during intervention

<table>
<thead>
<tr>
<th></th>
<th># of subjects</th>
<th>Stage 1 $25 task</th>
<th>Stage 2 $50 task</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline</td>
<td>31</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>VW1</td>
<td>58</td>
<td>26</td>
<td></td>
</tr>
<tr>
<td>$25+$50</td>
<td>58</td>
<td>27</td>
<td>14 (24%)</td>
</tr>
<tr>
<td>V</td>
<td>58</td>
<td>27</td>
<td>14 (24%)</td>
</tr>
<tr>
<td>VW</td>
<td>59</td>
<td>28</td>
<td>6 (8%)</td>
</tr>
<tr>
<td>W</td>
<td>58</td>
<td>26</td>
<td>4 (7%)</td>
</tr>
</tbody>
</table>
Overall Sign Up Rate by Treatment

Number in the parenthesis is the compliance rate in Stage 2.

Email Signup Rate

VW(8%)  Baseline  V (24%)  VW1  W (7%)
Sign Up Rate by Treatment

Failed in Stage 1 ($25 week)

Succeeded in Stage 1 ($25 week)

Note: The number on each bar is the # of obs.
Volunteering and Sign-Up Rates by Treatment

After **Succeeded** in Stage 1($25 week)

Note: The number on each bar is the # of obs for volunteer hours. Excludes reports of more than 100 volunteering hours (2-3 in each treatment)

**Sign-Up rates significantly predict pattern of actual volunteering activity** (p<0.05).
Conclusion

• Using incentives to promote volunteering can be difficult when compliance rates are low.

• We provide evidence that a two-stage incentivized compound task mechanism can promote
  – a positive attitude toward volunteering
  – actual volunteering activities
  even when compliance with rewarded activities is low.
Thanks to Many Who Helped

• Carnegie Library Staff
  – Karen Meharra
  – Kaylee Petsch

• John Cusick (undergraduate student, CMU)
• David Hagmann (PhD student, CMU)
• Shuwen Li (PhD student, GMU)
Thank You!