Influencing Mountain Biker behaviour

Attitude sampling to improve compliance with temporary access restrictions

Glentress Forest, Scotland - 2011

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VSCG Workshop, December 2013

What’s the problem?

• We know that prohibition signs around forest operations are regularly ignored

• A real issue for the safety of visitors and staff too

• Failing to act on this knowledge undermines our duty of care
This study:
Can a **simple focus group** approach reliably predict **salient visitor beliefs** about a behaviour, (the ones that really drive behaviour) sufficient to generate an **effective sign message**?

<table>
<thead>
<tr>
<th></th>
<th>Week day</th>
<th>Weekend</th>
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<tbody>
<tr>
<td>Control</td>
<td>21.4%</td>
<td>45.3%</td>
</tr>
<tr>
<td>With Sign</td>
<td>2.9%</td>
<td>22.0%</td>
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Sample size: n=569
More theory...

- Learning theory – experiential and reflective learning

Consistency theories – cognitive dissonance and attitude change

Beliefs are like possessions...

Theory of Planned Behaviour (Ajzen, 1991)

- Behavioral Beliefs: A person’s belief that a behavior leads to certain results & his or her evaluation of these results.

- Normative Beliefs: A person’s belief that specific individuals or groups think he or she should or should not perform the behavior & his or her motivation to comply with their wishes.

- Control Beliefs: A person’s belief that certain factors either facilitate or inhibit performance of the behavior & his or her assessment of the degree to which each makes the behavior easy or difficult.
More theory...

• Decision theory

• We don’t always act logically even when we think we are.

• Our assumptions or “rules of thumb” are flawed: Systematic and predictable errors: Bias

• Optimism Bias and risk - individuals persistently overestimate the extent to which they have control over events

• Thaler and Sunstein’s “Nudge” (2008)

What do we know about Attitudes to Risk?

• Individuals become increasingly risk averse with age

• Males are significantly greater risk takers

• Risk taking behaviour in individual sports - driven not by recklessness but by pleasure and thrill stimuli & interest in self discovery

• Experienced participants also develop experience and skill to mitigate risk... skill vs. hazard may still be systematically overestimated.
More theory... Effective messages

- Fear
- One or two sided arguments
- Candour
- Believability

- The Elaboration Likelihood Model and the Central Route to Persuasion
1. Elicitation study – understanding visitor’s beliefs about the desired behaviour (sample 25 compliers & 25 non compliers)

2. Detailed study – question salient beliefs (behavioural, normative, control). Sample 50 compliers and 50 non compliers

3. Develop messages that target beliefs & desired behaviour

4. Evaluate & adapt

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**My main Study Method**

- Control – measure compliance without sign
- Run focus groups – 2 x compliers / 2 x non compliers. Use structured questions around behavioural / normative / control beliefs
- Analyse & identify salient beliefs
- Develop sign
- Measure compliance again with the sign
So which beliefs really mattered?

• **Lots of good candidate beliefs.** Only really careful analysis revealed the likely best belief to target. But the focus group approach certainly helped understanding.

• **Inconvenience** – “I could meet an impassable obstacle and have to come back”

• Essential supporting information:
  
  **Explanation** - reason for closure

  Is the sign **currently relevant** – today?

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**Trail closed**

Sorry, we’re in the middle of a *Tree felling operation.*

Even when we’re not actively working, a closed trail can be **impassable** as well as dangerous.

And when you **finally** have to come all the way back here…

Save it for another great trail instead and stay safe!

The trail should be open again by:  The first week in September

Thanks

www.forestry.gov.uk/scotland
Understanding the results

• The Weekday / Weekend Effect – determined visitors vs. locals & believability of active working

• Are Compliers and Non-Compliers Different? - both behaviour groups appeared to hold similar beliefs. Conditional compliers = target for persuasion

• Non-compliance: Hazard and Risk. The residual non compliers were greater risk takers. Influence those you can, leave the rest

• Experience and Trail Grades – Gaps in the Data. Would novices on easier trails behave similarly? What effect of ignorance & lack of previous experiences?

• Peer Influence, Intent and Actual Behaviour – group discussions (Elaboration Likelihood Model) plus seeing others

• Getting Visitors’ Attention – a major problem!
Long Term Attitude Change and Message Reinforcement

- Experiences are reflected on and tested, perhaps through several iterations, before new beliefs are fully adopted
- Reinforcement important and also changing message approach – keep it fresh
- Potential for behaviour change to be short lived & no lasting belief change
- Unrealistic to expect users to stop using own judgement. Respect their intelligence!

Ten easy steps...

1. The target audience - “conditional compliers”
2. Claims and scenarios - believable and honest
3. Avoid stressing dangers to personal safety
4. Don’t attempt to challenge firmly held beliefs
5. Focus message on interests of the visitor
6. Reason for closure and duration
7. Messages – unambiguous & simple
8. Designs - impact and engage quickly
9. Avoid over signing
10. Active sign management
Thank you!