CAST: 8 recommendations to increase the chances of success of road safety campaigns

Werner De Dobbeleer, Belgian Road Safety Institute (IBSR-BIVV)
Overview

- Introduction – causes of road accidents
- CAST project description
- Success factors for campaigns
- Recommendations for successful campaigns
- Example: PIT STOP campaign against driver fatigue
- Conclusions
Causes of road accidents
(Wierwille et al., 2002)

Road User Behaviour

- 65%
- 25%
- 5%
- 1%
- 2%
- 2%
How to influence behaviour?

- Legislation
- Road engineering
- Vehicle engineering
- Enforcement
- Education

Awareness-raising → road safety campaigns
But still...

What do we really know about campaigns??

At best:

- Some country-specific details, but...
- General lack of properly evaluated campaigns
- General lack of structured knowledge
Effects?
Success factors?
Increase chances of success?
cast
• Campaigns and Awareness-raising Strategies in Traffic safety
• Research project with EC support, 2006-2009
• 19 partners, 15 countries
• Coordinator: Belgian Road Safety Institute (IBSR-BIVV)
PARTNERS

FACTUM - Austria
IMOB - Belgium
CDV - Czech republic
INRETS - France
BASt - Germany
UTH - Greece
ISEC - Portugal
BfU - Switzerland
DTU - Denmark
SIPSiVi - Italy
SWOV - the Netherlands
Min. of Transport - the Netherlands
TØI - Norway
IBDiM - Poland
PRP - Portugal
ULFF - Slovenia
VTI - Sweden
RfSF - Denmark
CAST Objectives

- Enhance road safety by means of more effective road safety campaigns
- Provide practical tools to design, implement and evaluate road safety campaigns
Core questions

- Do campaigns **work**?
- How **well** do they work?
- What **factors** influence this?
- How to **design and implement** effective campaigns?
- How to measure the effects of campaigns?

→ need for clear **guidelines**
• CAST database
  • 221 campaign evaluation studies, 1980-2007, Europe (40%), USA (40%), Au/NZ (20%), other (0.01%)
  • 433 individual campaign effects (effect = change in accident counts or % behaviour coinciding with campaign)
  • Meta-analysis: weighted average of effects

E.g.
- 1. 1000 accidents before, 900 after (- 10%)
- 2. 10 accidents before 5 after (- 50%)
→ 1. receives greater weight
Results: identified success factors

campaigns have greater chances of success (= effect) if...

- Well-defined target group (e.g. young male car drivers)
- Personal communication (field actions)
- Combine rational and emotional content
Success factors (2)

campaigns have greater chances of success (= effect) if...

- Focus on social norms
- Focus on detection risk (rather than risk of harm)
- Intimacy (personal messages → trust)
- Immediacy (communication in traffic context)
Success factors (3)

campaigns have greater chances of success (= effect) if...

- Combine with enforcement (+ feedback)
- Focus on risk perception (↔ humour, fear)
1. Base campaigns on **in-depth analysis**
   - Problem behaviour
   - Target group(s) concerned
   - Factors that can influence target group’s behaviour

2. Define **specific target audience**

3. Define **specific objectives**
   - Knowledge
   - Attitudes
   - Behaviour
4. Develop **campaign strategy** and media plan based on specific objectives

5. Precisely formulate the **message** (unambiguous, clear, credible,...)

6. Ensure good campaign **implementation**

7. Ensure **rigorous evaluation**, i.e. at least:
   - Process evaluation (campaign reach)
   - Effect evaluation (knowledge, attitudes, behaviour) → pre/post measurements

8. Publish **results and conclusions** → input for future campaigns
Example: PIT STOP campaign

- **What?**
  - road safety campaign on driver fatigue
  - according to CAST guidelines and recommendations
  - practical test of CAST guidelines

- **Where?**
  - Belgium

- **When?**
  - Nov-Dec 2008
Situation analysis

• Recommendation: base the campaign on statistics and research
  – Belgium: no registration of fatigue as accident factor
  – International studies: fatigue is major factor in 10 to 20 % of accidents, growing awareness
  – More information needed -> survey (615 car drivers, Belgium) – Results:
    • risk perception: fatigue = 4th most important accident factor (after speeding, alcohol, drugs)
    • self-reported behaviour: 1/3 has driven while too tired during last year (especially men, 18-34 aged, professional drivers, social upper class)
    • popular countermeasures: fresh air, music, short break, coffee
    • 1/3 do not know how to reduce fatigue
Situation analysis

• Literature review: fatigue (ERSO)
  – fatigue deteriorates driving behaviour
  – fatigue is quite frequent
    • over 50% of private drivers at least 1x/year
    • young drivers & professional drivers: increased risk
  – fatigue increases crash risk
    • 17 h awake = 0.05 BAC
  – best remedy: 15 minutes of sleep ("powernap")
Situation analysis

• **Recommendation: select a specific target audience**
  – 18-25 year old car drivers, mainly men
    • high risk group due to lifestyle
    • more vulnerable to effects of fatigue
Situation analysis

• Main behaviour predictors for target audience
  – Qualitative pilot study, 20 car drivers, 18-25 y.o.: personal perceptions and motivations
    • knowledge of general risk is OK
    • personal risk apprehension is not always present
    • knowledge is applied for long journeys, not for short distances / known itineraries
    • problem concentrated in early morning (after night out)
    • main motivation: get home asap to sleep
    > emotional + socially influenced
    • social threshold for safe behaviour should be removed
**Situation analysis**

- **Recommendation: base campaign strategy on behavioural change theory**
  - Protection Motivation Theory (PMT): motivation for safe behaviour is linked to personal appraisal of threat and possible coping solutions
Campaign design

• Campaign strategy:
  – increase threat appraisal by
    • influencing beliefs on personal vulnerability
  – increase coping appraisal by
    • increasing response efficiency
      > provide knowledge about effective countermeasure (powernap)
    • decreasing response costs
      > remove social barriers to perform safe behaviour
Campaign design

- **Recommendation: formulate specific objectives**
  - **Knowledge**
    - Increase knowledge of effective solution (response efficiency)
  - **Beliefs**
    - Decrease beliefs on other solutions, getting home asap, opinions of friends and family (response efficiency, response costs)
    - Increase personal risk perception (vulnerability)
  - **Behavioural intentions**
    - Increase intention to take powernap (protection motivation)
    - Decrease intention to choose other solutions or keep driving
  - **Self-reported behaviour**
    - Increase powernap behaviour
    - Decrease other solutions or keep driving
Campaign design

- **Recommendation:** formulate unambiguous, credible and clear message
  - Central message: “if you feel tired, take a 15 minute powernap”
  - Campaign title: PITSTOP (> link with Formula 1 races: pitstop to refuel with energy)
  - Campaign slogan: “PITSTOP. The only remedy against fatigue behind the wheel.”
Campaign implementation

- 12 Nov – 15 Dec 2008
- small posters in youth clubs, schools, libraries,…
- radio spots on youngsters' stations, weekend nights, 4 weeks
- information leaflet distributed through IBSR network
Campaign implementation

- **PITSTOP website**
  - Information on fatigue and effective solutions
  - Online game on fatigue
Campaign implementation

- Field actions: distribution of PITSTOP gadgets by IBSR volunteer network
  - Petrol stations
  - Discotheques and nightclubs
Evaluation types and methods

- **Recommendation: Ensure rigorous evaluation**
  - formative evaluation: qualitative pre-test
  - process evaluation:
    - objective exposure (number of messages distributed)
    - subjective exposure (number of messages received in target audience)
  - outcome evaluation:
    - Knowledge (> response efficiency)
    - Beliefs (> response efficiency, response costs, severity, vulnerability)
    - Behavioural intentions (> protection motivation)
    - Self-reported behaviour
  - **Method:** before / after measurement (online survey, quasi-experimental design with comparison group)
Evaluation results (process)

- **Exposure**
  - 1750 radio spots, 20,000 leaflets, 15,000 posters, 15,000 door hangers, 10,000 Pitstop gadgets distributed
  - Website: 25,000 unique visitors
  - 14 field actions

- **Recall**
  - 33 % remember at least 1 campaign element (18-25, N=598)
  - Radio spot: 60% - website: 14% - pitstop gadgets: 12%
Evaluation results (outcome)

- **Knowledge**
  - Increased knowledge of effective remedy (22% → 30%)

- **Attitudes**
  - Partial decrease in wrong beliefs on other remedies
    - Fresh air (24% → 18%)
  - Increased personal vulnerability
    - "I am less at risk than others" (32% → 27%)

- **Behaviour**
  - Partial decrease in behavioural intentions on other remedies (36% → 32%)
  - No change in self-declared behaviour (main barrier: feeling of unsafety on parkings)
Conclusions?

1. **YES, campaigns have effects**
   - Well-conducted campaigns will increase the chances of success

2. **ALWAYS evaluate campaigns**
   - Know if campaign has worked or not, and why
   - Justification for the money spent (government, sponsors,...)
   - Negative results? You can learn from those as well!
   - Publish evaluation results, and allow others to learn from your experiences!
CAST handbooks

- Campaign manual
  - Detailed manual for designing, implementing and evaluating road safety communication campaigns (step-by-step guide)
CAST handbooks

• Evaluation tool
  – In-depth information about evaluation types and procedures
  – Practical guidelines for campaign evaluation

• Reporting tool
  – Practical guidelines to write a campaign report
CAST handbooks

- Abridged version (21 languages)
CAST handbooks

Available online at

www.cast-eu.org
Thank you!

werner.dedobbeleer@bivv.be

More information:

www.cast-eu.org