
Science Writing 101

Tips from the newsroom

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soccer

versus

tennis



anatomy

of a

newspaper



Toolkit:

1. The NEWS story:

- style & tone: short, sober, factual, neutral
- length
- voice (3rd person; 2nd person; 1st person)
- attributing sources
- widely applicable (press release; blog)

2. The OP ED ('opposite the editorial')



Why bother:

- 1. Journalistic tools to distill your thoughts**
- 2. Re-assemble (face-to-face; workshop; 'elevator pitch'; 60 second radio interview)**

A close-up, black and white photograph of a spiral-bound notebook. The pages are slightly curved, and the spiral binding is visible on the left. Handwritten text in dark ink is visible on the pages, including phrases like "study visit", "further inform", and "aim".

Planning your article

- 1. Audience**
- 2. Medium (length: time & space)**
- 3. Language (tone, pace, jargon, detail)**
- 4. Toolkit**
- 5. Structure**
- 6. Over to you**

Case study: Cape Town water crisis



CT water crisis



Behavioural Nudges for Water Conservation: Experimental Evidence from Cape Town, South Africa

Report to the
WATER RESEARCH COMMISSION

Kerri Brick, Samantha DeMartino and Martine Visser

University of Cape Town

February 2017

EXECUTIVE SUMMARY

South Africa is in the grip of the worst drought in decades with eight provinces having been declared disaster areas (KwaZulu-Natal, North West province, Free State and Limpopo). In the City of Cape Town, at the time of writing (January 2017), dam levels stand at 39% of capacity (City of Cape Town 2017). By comparison, in 2014, dams were full. As part of their response to

A close-up, black and white photograph of newspaper text. The words 'study visit' and 'further inform' are visible, along with a large, bold, stylized letter 'a'.

1. Audience

Case study:

1. Anyone and everyone? NO!
2. Op ed for national newspaper
3. Local government:
 - * mayor's office
 - * utility managers
 - * city communications team



2. Medium

1. **Verbal: face-to-face; workshop; tv/radio**
2. **Press release or news story**
3. **Resource pack (to help city to design public outreach messaging)**



3. Language

1. **Keep it conversational**
2. **Active vs passive voice**
3. **Lose the jargon**
4. **Lose the detail**



3. Language

Conversational:

Informational failures, which are prevalent in a water context, likely play a role in inefficient resource usage. Water consumption is often unobservable (toilet flush, washing machine, irrigation, and leaks) and, even in cases where usage is visible, it is not always easily quantifiable, for example, the amount of water used in a shower. Given that quantifying the water used by appliances, toilets, irrigation systems, showers etc. can be both complex and costly, water usage becomes a de facto unobservable characteristic, receiving less weighting than other preferences (adapted from Ramos et al. 2015). With respect to price, consumers are not responsive to price signals when price information is unclear and the pricing system is complex (Ramos et al. 2015; Chetty et al. 2009; Gaudin 2006). This is particularly true of water where (i) conventionally metered consumers pay for water ex-post and not at the instance of usage and (ii) the tariff structure used by municipalities is often complex and nonlinear – such as the inclining block tariff system used by the City of Cape Town where marginal prices



3. Language

Active vs Passive:

instruction, legislation or enforcement, behavioural nudges aim to achieve non-forced compliance using positive reinforcement and indirect messages to leverage behavioural change.

In this study, the impact of information-provision and feedback on residential water consumption is tested with emphasis on clarifying the tariff structure and associated cost of water, different social norms and also social recognition as leverage points for behavioural change.

The objectives of this study were to:

- Reduce residential water consumption in times of extreme water scarcity using behavioural nudges as a demand side management tool.



3. Language

Jargon:

- The second group of messages promoted water conservation via social incentives and appeals to the public good. In the *social norm treatment*, a household's consumption is compared to the average household in their neighbourhood. In the *intrinsic motivation treatment*, households are asked to help the City save water by supporting a City-led water saving initiative and reducing consumption by 10% over the study period. In contrast, in the *social recognition treatment*, households that succeed in reducing their usage by 10% are publicly recognized on the City's website. Finally, as water scarcity is a classic public-good dilemma, the study also introduced a *public good treatment* that framed water savings as contributing towards a common good.

The study concludes that behavioural messaging had a significant and positive effect on water



3. Language

Detail:

set of economic and environmental conditions. Then the difference between the difference in outcomes for the treated and the comparison is calculated. In a two-period setting, the average program impact is estimated as follows:

(1)

where $t = 0$ before the intervention is implemented and $t = 1$ after implementation, Y_t^T is the outcome for treated households at time t , Y_t^C the outcome for non-treated households at time t , $T_1 = 1$ denotes treatment and, finally, $T_1 = 0$ indicates allocation to control (Khandker et al. 2010).

As evident from equation 1, the difference-in-difference estimator is based on a comparison of treated and control households both before and after the intervention – with the average treatment effect being calculated as the difference between the outcomes for the treatment



4. Toolkit

1. **Angle/hook: what's new, interesting?**
2. **'So what?' question**
3. **Take home message ('call to action')**
4. **Five Ws & the H**



4. Toolkit

Angle/hook:

What's new or interesting?

- Rich people will voluntarily take on water-saving measures at home if they know they're going to get praised publicly for their efforts
- they don't respond to threats of fines or price hikes because they don't feel the financial pinch



4. Toolkit

‘So what?’:

Why does *this* issue matter to *this* audience?

- SA + Cape Town = worst drought in over a century
- have already tried price hikes and threats of fines (stick approach)
- tested how ‘carrot’ approach will work to get voluntary behaviour change



4. Toolkit

Take home message:

City utility managers should:

- tell the public that if their water usage drops, they will have their names published on a website
- include positive messaging in monthly utility bills
- combine this 'carrot' approach, with 'stick' approaches eg water price hikes and fines



4. Toolkit

Five Ws & H:

Who: *depends! (no 'right' or 'wrong')*

- **Water consumers in Cape Town (esp wealthier ones)**
- **(City utility managers)**



4. Toolkit

Five Ws & H:

What: (*Office staff - A*)

- Responded better if they know they'll be praised publicly for their voluntary water wise behaviour
- Don't notice water price hikes because they're wealthy



4. Toolkit

Five Ws & H:

When: *when was the experiment run, or when should this be implemented?*

- **experiment:** run over six months over summer (2015/16) when city was implementing tighter water restrictions following two years of severe drought



4. Toolkit

Five Ws & H:

Where:

- **spacial: experiment was run across the municipality**
- **demographic: targeted 400 000 households from various income brackets**



4. Toolkit

Five Ws & H:

Why: (*was the experiment run*)

- to test how responsive people are to 'behavioural nudges'
- (explain what behavioural nudges are, with examples to illustrate the point)



4. Toolkit

Five Ws & H:

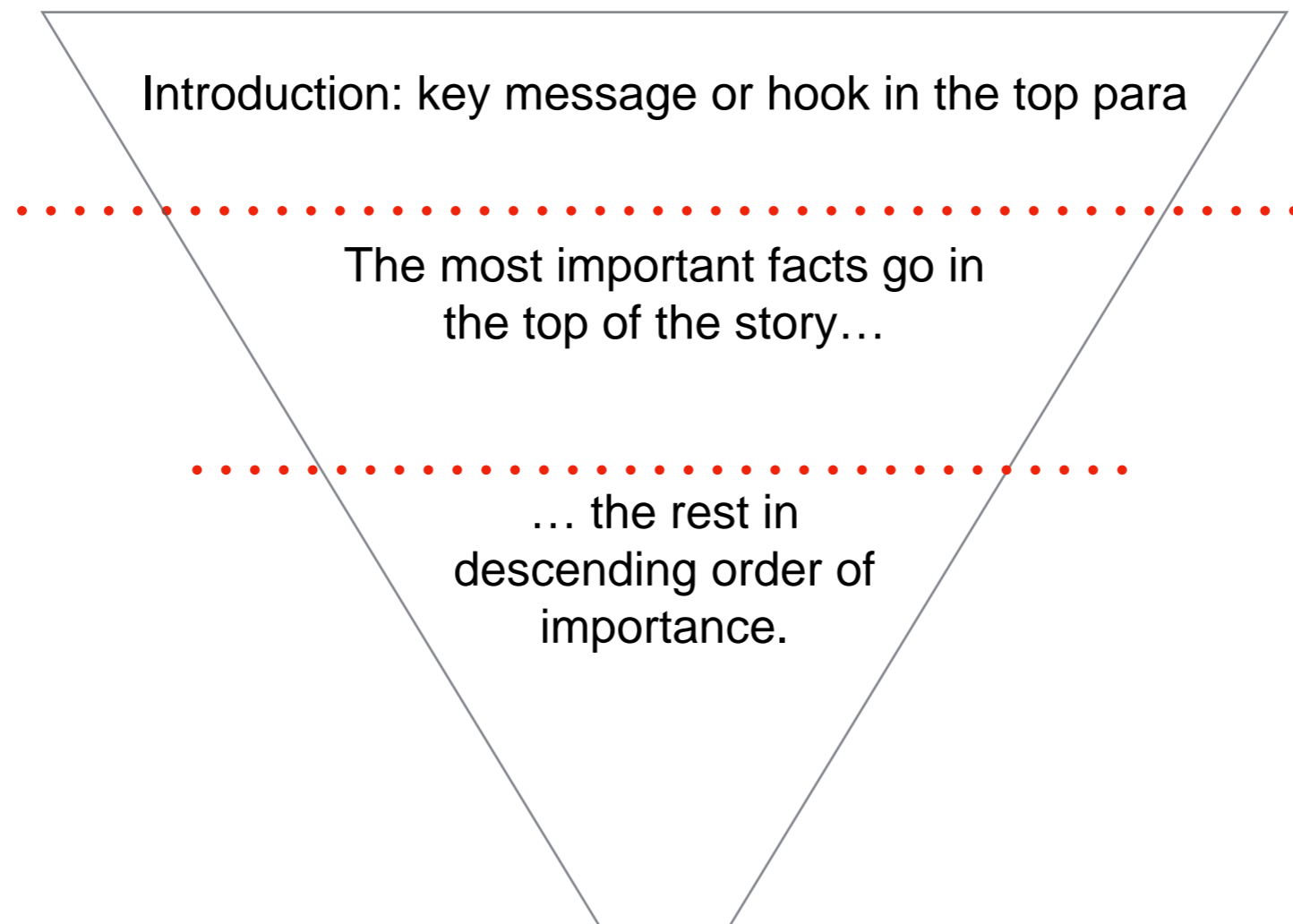
How: (*was the experiment run*)

- nine differently framed messages
- sent to 400 000 households ('carrot' and 'stick' framing)
- in monthly utility bills
- over six month period when water restrictions were intensifying



5. Structure

THE INVERTED PYRAMID



Cape Town water crisis

Mail & Guardian

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ENVIRONMENT

Public praise drives water-wise behaviour: A lesson for city managers

Samantha DeMartino, Martine Visser, Kerri Brick 13 Apr 2017 21:01

Applauding people publicly for their successful efforts to reduce water use at home may be an effective means of driving water-wise behaviour across a city. This kind of positive messaging by city utility managers can work alongside other methods that are traditionally used to drive demand-side water conservation measures among households, such as water restrictions and tariff increases.



The City of Cape Town has been working closely with EPRU for the past two years in order to find the best evidence-based approaches to managing the municipality's water supply. (David Harrison, M&G)

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COMMENTS

This is what researchers from the University of Cape Town found after a six-month experiment using behavioural “nudges” amongst household water consumers in the city during the drought last summer. Behavioural nudging is



Over to you

- 1. Audience**
- 2. Angle/hook = 2 sentence introduction**
- 3. 'So what?'**
- 4. Take home message ('call to action')**
- 5. Five Ws & the H**
- 6. Jargon**