CRC for Water Sensitive Cities

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Engaging communities with Water Sensitive Cities

Images that engage communities with Water Sensitive Cities

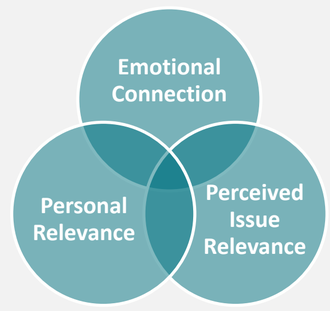
A Q-Methodology Study

Introduction

The creation of a water sensitive city requires communities to actively engage with the concept of Water Sensitive Urban Design[1]. One effective way to engage people with unfamiliar and complex topics is through the use of images[2].

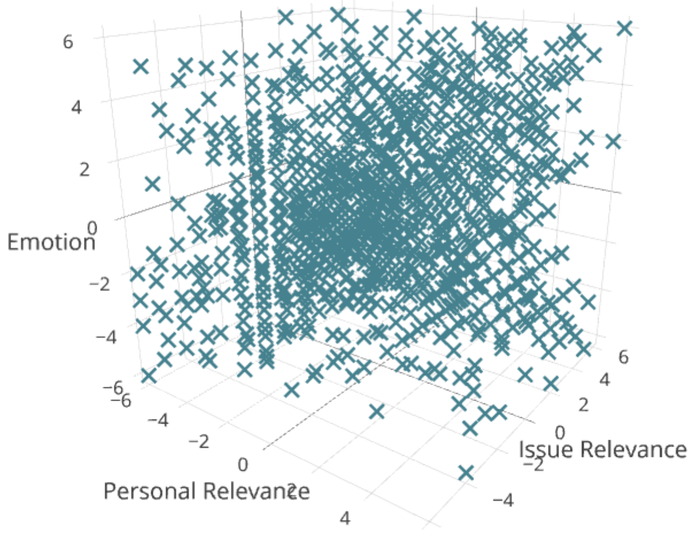
This project will empirically test **how images influences individuals attitudes towards, and engagement with, water sensitive urban design (WSUD).** The results will be of use to water industry professionals in designing communication materials. Prior research suggests that engagement can occur when an image:

- evokes or elicits an emotional connection,
- is perceived to have personal relevance, and
- is perceived as relevant to the issue being communicated.



Method

A series of one-on-one Q-sorts[3] were undertaken in Brisbane, QLD (N = 23, 52% female, mean age 43.3 years). Each participant sorted 70 representative images used by industry in communications about WSUD targeted at community members. Images were sorted three times according to emotionality (positive vs. negative), personal relevance, and issue relevance.



Results

The 3D scatter plot depicts how each image was rated by each participant.

Two key trends emerged:

1. Images rated as being more personally relevant were more likely to evoke positive emotions (*r* = .34).
2. Images rated as being more issue relevant were more likely to evoke negative emotions (r = -.29).

To identify if sub-groups of people had different reactions to the images, a factor analysis was undertaken to explore **the overall salience for all 70 images for each of the three dimensions.** Factor scores (*fs*) for each dimension can range from -6 (low) to 6 (high).

Example 1: Stormwater Drain (Image 62)

Image 62 elicited consistent perceptions. The image evoked negative emotions for both of the identified sub-groups (*fs* = -5 and -5), and was also perceived to be relevant to stormwater management (*fs* = 4 and 6). The largest sub-group rated the image as being of low personal relevance (*fs* = -5), with two smaller groups rating the image as personally relevant (*fs* = 4 and 5).

Image 62
Source: Melbourne Water

Example 2: Dolphin (Image 24)

Image 24 elicited diverse perceptions. For the emotional dimension, one group of participants rated the image as having high positive affect (*fs* = 5), while a second group had no emotional response to the image (*fs* = 1). With regard to issue relevance, one group rated the image as moderately relevant (*fs* = 3) and a second group as highly irrelevant (*fs* = -5). For the two largest groups that emerged from the personal relevance scale, one group rated the image as highly relevant (*fs* = 5), however a second group rated the image has highly irrelevant (*fs* = -5).

Image 24
Source: Healthy Waterways

What's next?

The next stage of the research will be to take the images, identified as high and low salience for each dimension, embed them into written communication messages and empirically assess for any changes with regard to how community members process the message content and, ultimately, how that influences overall support for WSUD policy and practice.

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2. O'Neill, S. (2013). Image matters: Climate change imagery in US, UK and Australia. *Geoforum, 49*, 10-19.
3. Brown, S. R. (1980). *Political subjectivity: Applications of Q Methodology in Political Science*. New Haven, CT: Yale University Press.