Institution: University of Hertfordshire

Unit of Assessment: Panel A (4): Psychology, Psychiatry and Neuroscience

Title of case study: Promoting subjective well-being: A mass participation approach

1. Summary of the impact (indicative maximum 100 words)

Professor Richard Wiseman has conducted several mass participation experiments. He has employed this approach to create high-profile projects in order to help communicate key findings from academic psychology to the public. This case study focuses on one such initiative. In 2009, 'The Science of Happiness' project involved over 20,000 members of the public carrying out a series of evidence-based exercises designed to boost subjective well-being. Participant feedback revealed that the exercises had a significantly beneficial effect. The reach of this work was greatly increased by reports in the national media and a popular psychology book.

2. Underpinning research (indicative maximum 500 words)

Richard Wiseman currently holds Britain's only Professorship in the Public Understanding of Psychology. This involves an innovative form of public engagement that combines undertaking scholarly research and engaging the public with the results via television, radio, public lectures and appearances, mass-market publications, the Internet and social media.

A key part of his research entails conducting mass participation studies. This work began in 1995 with an innovative collaboration between Wiseman and BBC1's *Tomorrow's World* programme, BBC Radio 1, and the *Daily Telegraph*. To celebrate National Science Week, Wiseman was asked to design a large-scale study that could be run across three different platforms: television, radio and print. Professor Wiseman created 'The MegaLab Truth Test'. He interviewed the well-known political commentator Sir Robin Day twice: in one interview, Day told the truth, and in the other he lied. These interviews were then shown on BBC1 and played on Radio 1. The transcripts of the interviews were also published in the *Daily Telegraph*. Members of the public were asked to watch, listen or read the interviews and identify the lie. Previous research from several laboratories had suggested that verbal cues are superior to visual cues (in part, because they tend to be much harder to consciously control) and thus the radio listeners and newspaper readers would outperform the television viewers. This proved to be the case: over 30,000 people participated in the study, with television viewers being least able to detect the lie. This work was published in *Nature*, and in subsequent years Wiseman devised several other 'MegaLab' experiments.

Since then, Wiseman has conducted additional large-scale studies in collaboration with many other organisations, including the Edinburgh International Science Festival, the Cheltenham Science Festival, Channel 4 and the British Science Association. This work has involved developing many different methods of data delivery and collection, including the use of traditional media, live events, the Internet, social media, and smartphone apps. For example, in 2002 Wiseman created 'The Mind Machine', an interactive kiosk that presented participants with a virtual coin-tossing task, and examined the relationship between their responses and superstitious beliefs. This kiosk toured the UK and collected data from over 30,000 participants, with the results suggesting that those who tended to be especially superstitious exhibited significantly higher levels of unrealistic optimism prior to the task, and greater amounts of confirmation bias afterwards.

Wiseman's most recent work in this area has focused on the Internet as a platform for the delivery of experimental stimuli and collection of data. In 2005, he ran a large-scale Internet study into personality and chronopsychology (25,000 participants), and in 2010 teamed up with *New Scientist* magazine to conduct the first psychology experiment via the social media site Twitter. The first of these studies revealed that self-perceived luckiness was significantly higher among summer-borns than winter-borns, whilst the second study failed to find any evidence to support an alleged paranormal phenomenon known as 'remote viewing'.

Employing his considerable expertise in conducting mass participation studies for scholarly and public engagement purposes, Wiseman has created other, similarly high-profile projects to help communicate key findings from academic psychology to the public. A typical example, the Science of Happiness Project, is described in section 4.

3. References to the research (indicative maximum of six references)

Wiseman, R. (1995). The MegaLab Truth Test, *Nature*, 373, 391. doi: 10.1038/373391a0

Wiseman, R. (1996). 'MegaLabUK': Participatory science and the mass media. *Public Understanding of Science*, 5 (2), 167–69. doi: 10.1088/0963-6625/5/2/006

Wiseman, R. and Greening, E. (2002). The mind machine: A mass participation experiment into the possible existence of extrasensory perception. *British Journal of Psychology*, 93 (4), 487–99. doi: 10.1348/000712602761381367

Wiseman, R., Watt, C., Stevens, P., Greening, E. and O'Keeffe, C. (2003). An investigation into alleged 'hauntings'. *British Journal of Psychology*, 94 (2), 195–211.
doi: 10.1348/000712603321661886

Chotai, J. and Wiseman, R. (2005). Born lucky? The relationship between feeling lucky and month of birth. *Personality and Individual Differences*, 39 (8), 1451–60.
doi: 10.1016/j.paid.2005.06.012

Wiseman R., and Watt C. (2010). Judging a book by its cover: The unconscious influence of pupil size on consumer choice. *Perception*, 39 (10), 1417–19. doi: 10.1068/p6834

– *This publication is listed in REF 2*

Wiseman R., and Watt C. (2010). 'Twitter' as a new research tool: A mass participation test of remote viewing. *European Journal of Parapsychology*, 25, 89–100.
Link to article: http://ejp.wyrdwise.com/EJP%20v25.pdf

4. Details of the impact (indicative maximum 750 words)

The Science of Happiness Project

Using Professor Wiseman's participative approach, this 2009 project was a large-scale initiative designed to help boost subjective wellbeing. Before its launch, an opportunistic sample (N=786) of participants was recruited from the general public via a social media campaign. Acting as participant–informants, they aided the project's design by identifying some of the key attributes that Internet-based happiness interventions needed to possess if they were to have mass appeal.

Participants were then asked to imagine that there was a psychological technique that provided a small but real boost to their happiness (e.g., writing down the things in their life for which they had a sense of gratitude), and that they were going to be taught the technique via the Internet. Next, they were asked to indicate the preferred mode of delivery used to explain the technique (text, video or both), how long they would be prepared to spend reading or listening to these instructions, how long they would be prepared to spend carrying out the technique, and how quickly they would want the exercise to have some form of impact.

The majority of participants indicated that they would like the exercise to be delivered via both video and text, that they would be willing to spend up to 10 minutes learning about the exercise and up to 10 minutes carrying it out, and that they would like to feel some kind of impact within a few days.

Wiseman then reviewed laboratory studies (including those by psychologists Martin Seligman from the University of Pennsylvania, and Sonja Lyubomirsky from University of California, Riverside) that had experimentally examined various techniques designed to promote subjective well-being, and used the participant feedback from the development phase to select four approaches: the recognition of gratitude (encouraging people to identify aspects of their life for which they have a sense of gratitude), acts of kindness (encouraging people to help a friend or stranger), facial feedback (encouraging people to smile and so induce the emotion associated with that expression), and positive recollection (encouraging participants to reflect on a positive life event).

Wiseman created short videos describing each of the techniques. To help assess the efficacy of the exercises he also created a control task (in which participants were asked to merely think about the events of the day before) and prepared a film to accompany this exercise.

The project was promoted via interviews in the national press and radio. Members of the public were asked to visit the project website and discover more about the initiative; over 20,000 people decided to take part. Before being allocated an exercise, each participant was asked to complete various measures of their happiness, including a standard measure of subjective well-being, the 'Subjective Happiness Scale' (SHS), a psychometrically validated scale commonly used in several studies assessing the impact of happiness interventions.

Participants were then randomly allocated one of the four exercises or the control task and asked to complete it on a daily basis for a week. At the project's end participants were asked to report how easy they found the exercise and how often they had completed it. They were also asked to complete various measures of happiness a second time, including the SHS. The results revealed that the techniques were highly effective (see section 5, 'Technical Report'). For example, around 42% of those in the control group reported increased happiness, compared to around 55% of those in each of the treatment conditions. The 'positive recollection' exercise was especially effective.

Various activities extended the reach of the project by disseminating the project results and the 'happiness techniques' identified as being effective to a wider audience:

- The results were reported in the national press, including articles in the *Daily Mail*, the *Telegraph* and the *Guardian*.

- The videos used in the experiment were placed on YouTube and have received over 50,000 views in total.

- The exercises were reported in Wiseman's best-selling book on popular psychology, *59 Seconds*: *Think a Little, Change a Lot* (2009). This book has sold over 200,000 copies in the UK, and been translated into over 20 languages. The book has received a positive reception, including the following appraisals:

  'A triumph of scientifically proven advice over misleading myths of self-help. Challenging, uplifting and long overdue.' – Derren Brown.

  'The practical advice to be found on every page of 59 Seconds is vivid, accessible, and refreshing. It's the perfect antidote to the vague vacuous nonsense crowding the shelves of self-help bookshops.' – Sam Gosling (Psychologist, University of Texas)

  'Imagine taking thousands of papers from the vast world of psychology and distilling them down to the most important, unexpected, salient and straightforward lessons for how to live our lives. That's Wiseman's book.' – David Eagleman (Director of the Laboratory for Perception and Action, Baylor College of Medicine).

5. Sources to corroborate the impact (indicative maximum of 10 references)

Technical Report

Richard Wiseman, 'Developing internet-based happiness interventions with mass appeal: Two initial studies', University of Hertfordshire, 2010.

– *A copy of this internal post-project Technical Report, detailing the methodology and results of the Science of Happiness public participation exercise, is available on request.*

Press Coverage

'How thinking of yesterday can make you happy today', *Mail Online*, 12 August 2009:

<http://www.dailymail.co.uk/sciencetech/article-1205935/How-thinking-yesterday-make-happy-today.html>

'Scientists announce mass participation experiment to cheer up the UK', *Science Daily* website, 1 August 2009: <http://www.sciencedaily.com/releases/2009/07/090731090009.htm>

Chris Irvine, 'Thinking of something good that happened the day before boost happiness', *Telegraph* (Science news), 12 August 2009:

<http://www.telegraph.co.uk/science/science-news/6013013/Thinking-of-something-good-that-happened-the-day-before-boost-happiness.html>

Katie Scott, 'The science of happiness: what makes Britain smile', *Wired*, 12 August 2009:

<http://www.wired.co.uk/news/archive/2009-08/12/the-science-of-happiness-what-makes-britain-smile>

Sam Wong, 'Reasons to be cheerful: Study gives happiness techniques thumbs up', *Guardian* (Science news), 12 August 2009:

<http://www.guardian.co.uk/science/blog/2009/aug/12/happiness-richard-wiseman>

Other

Videos explaining the four 'happiness' exercises found to be effective are available on YouTube:

<http://www.youtube.com/user/In59seconds>

Press and other reviews of *59 Seconds* (including the Derren Brown quote used in section 4) are available from the Amazon website:

<http://www.amazon.co.uk/59-Seconds-Think-little-change/dp/0330511602>

Further reviews, including those by Gosling and Eagleman quoted in section 4, can be found on the Random House website, *59 Seconds* page:

<http://www.randomhouse.com/acmart/catalog/display.pperl?isbn=9780307273406&view=print>

Written confirmation of book sales figures for *59 Seconds* is available on request