SCIENCE WEEK The Aha! Challenge

Searching for insight? Maybe get into nature

Early results from Australia-wide experiment suggest being outdoors can be a good way to trigger "aha" moments.

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People are most likely to have a sudden bright idea when out in the bush – or lying in bed.

That's one of the early observations arising from The Aha! Challenge, the month-long Australia-wide science experiment that kicked off during National Science Week and runs until the end of August.

The experiment, which revolves around a series of online brainteasers, aims to explore sudden bursts of clarity and insight, and their role in problem-solving. In effect, it's a nationwide quest to find the things that make you go "aha!"...

And so far the results have been very revealing.

"There are some amazing responses from people regarding their own *aha* moments," says psychologist Dr Maggie Webb from Melbourne University, one of the architects of the experiment.

"Some are prompted by religion, including a couple of near-death experiences! Other have arisen around education, which have sparked a life-long love of a particular topic, while some have involved life realisations and relationships."

So far about 8000 people have logged on to do the challenge, and one of the most interesting early results is in response to questions about where *aha* moments occur.

Participants are encouraged to specify multiple situations which give rise to dropping pennies (as it were). The most frequently cited was "in nature", which accounted for 40 per cent of responses, with "in bed" following closely behind at 37 per cent.

Being in a quiet place did the trick for 36 per cent, at work or school rated for 30 per cent, while being in the shower prompted 30 per cent of respondents to exclaim "Eureka!", with the same revelation occurring in the gym for 17 per cent.

Less common situations that prompted *aha* moments included while driving, gardening, eating breakfast and attempting a cryptic crossword.

Organisers are keen for many more people to take up the challenge before the exercise ends. With more results, more questions can be answered.

Dr Webb's colleague, Dr Simon Cropper, for instance, is very interested in finding out whether the frequency and intensity of *aha* moments decline with age. Early indications, he says, suggest that they don't.

"We've had a lot of young people take the challenge, as well as some older ones," he explains.

"You kind of expect children to have a lot of *aha* moments because for them the world is new and there's a lot to discover. But it seems like these bursts of insight keep happening throughout life.

"It's early days yet, but it looks like they might be an essential part of our mental lives – a kind of lubricant, if you like, that assists the process of problem-solving."

The Aha! Challenge takes about 15 minutes. It can be found here: <u>www.ahachallenge.net.au.</u>











More about the project

The Aha! Challenge comprises a series of online brain teasers that challenge your perceptions.

They involve challenges, based on words, symbols, images and logic, that you have to complete, working against the clock. In most cases, as soon as you've entered an answer, you'll discover whether you were right or wrong, and then be asked to rate your responses. Were you surprised? Were you stuck? Did your solution make you go "*aha*"?

The challenge is open to people of all ages and requires no specialised knowledge. It's a fun way to shake up your brain cells, find out about the ways in which you think – and contribute to some serious science at the same time!

Talent available for interview

• Dr Simon Cropper, Melbourne School of Psychological Sciences, University of Melbourne

Simon is the co-author of several papers on the psychology of insight. His related areas of academic research include colour vision in healthy ageing, individual differences in perception and the intersection between hallucination and reality.

• Dr Maggie Webb, Melbourne School of Psychological Sciences, University of Melbourne.

Maggie is a psychologist who has been collaborating – with Dr Cropper and others – on research into the nature of insight since 2016.

Associate Professor Daniel Little, Melbourne School of Psychological Sciences, University of Melbourne.

Working often in combination with Simon and Maggie, Daniel's research focuses on the computational modelling of the timing and accuracy of real-time complex decisions in categorisation, concept learning, and recognition memory.

• Associate Professor Jason Lodge, School of Education, University of Queensland.

Jason's research concentrates on the application of the learning sciences to higher education. Specifically, he is interested in the cognitive and emotional factors that influence learning and behaviour and how research can be better used to enhance design for learning, teaching practice and education policy.

• Kylie Andrews, producer, ABC Science.

Kylie is an award-winning producer, editor and journalist. She has created and produced the ABC's online citizen science project for National Science Week since 2009, and is passionate about creating projects that are simultaneously engaging and scientifically valid.

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