

**THE APPLIANCE OF SCIENCE:**

# **39 WAYS TO IMPROVE YOUR MEETINGS**

**A PRACTICAL GUIDE ON HOW SCIENCE CAN  
HELP YOU CREATE GREAT MEETINGS AND  
MAXIMIZE THE PERFORMANCE OF THOSE  
WHO ATTEND.**

**BROUGHT TO YOU BY:**



**the meetology<sup>®</sup> group**  
exploring the science behind effective meetings





**the meetology® group**

exploring the science behind effective meetings

## HOW CAN WE HELP?

The Meetology® Group offer 4 services to companies, venues and meeting organisers.

### **Design Consultancy:**

Whether you're a company, venue or organiser our consultants will work with you on how to use findings from behavioral science to create a better meeting.

### **Behavioral Research:**

Our team of consultant psychologists undertake funded primary research into meetings behavior and performance.

### **International Speaking:**

We have spoken on the topic of meetings design and performance in over 20 countries.

### **Attendee Performance:**

Our performance division Meetings Mindset® offers in-house, online and onsite performance solutions to businesses and organisers

For more information please visit

**W:** [www.meetology.com](http://www.meetology.com),

**E:** [info@meetology.com](mailto:info@meetology.com)

**T:** +44 (0)1273 903802



**This guide has been supported by the  
PCMA Education Foundation**

**Dear fellow meetings industry professionals,**

I'm very pleased to be able to present this guide which has been produced through our relationship with the Meetology® Group.

The Meetology® Group is dedicated to exploring the science behind designing effective meetings and maximizing the performance of those who attend. This guide shares some of the highlights from the research which we hope you will find practically useful when planning your next event.

Research and insights to improve and advance our industry are made possible only through your generous contributions and your participation and support of PCMA Education Foundation events like Party With

a Purpose, the Dinner Celebrating Professional Achievement, Silent Auction and the Partnership Summit.

The PCMA Education Foundation is dedicated to funding scholarships, education and research to advance the meetings industry and we hope you enjoy the guide that it has helped fund.



Sincerely,

**Liz Erikson**

Chair  
PCMA Education Foundation

W: [www.pcma.org/foundation](http://www.pcma.org/foundation)

T: +1 877-827-7262

**Dear fellow meetings industry professionals,**

Ever since I first entered the industry 15 years ago I have been interested in how science can help us create even more effective meetings. When promoting a product those marketing it will often turn to science to add validation to their story and, at a time when we have to prove the value of meetings like never before, I believe that this is the key for our industry too.

When we approached PCMA with our proposal we were met with nothing but enthusiasm and I wish to publically thank the Foundation for supporting what has been a 2 year partnership. For this guide we've delved into our vast library and come up with some of the most fun pieces of research which,

as well as being practically useful, we hope will raise a smile or two too.

We look forward to offering our services to you in the future but for now we hope you enjoy this handy resource some of the contents of which you'll be able to incorporate at your next event.



Sincerely,

**Jonathan Bradshaw**  
CEO  
The Meetology® Group

**E.** [info@meetology.com](mailto:info@meetology.com)  
**W.** [www.meetology.com](http://www.meetology.com)  
**t** [@meetology](https://twitter.com/@meetology)

# CONTENTS

- 3 Introduction from Liz Erikson, Chair, PCMA Education Foundation
- 4 Introduction from Jonathan Bradshaw, CEO, the Meetology® Group
- 5 **Contents**
- 6 **Mental:** Boosting brain performance and managing emotions
- 10 **Social:** Building rapport, influencing and persuading
- 14 **Space:** Creating the best meetings environment
- 18 **Wired:** Technology innovations in meetings
- 22 **Physical:** Maximizing physical wellness through diet and exercise
- 26 **Bizarre:** Some research to make you smile
- 30 References



**mental**

brain performance, thoughts & emotions

## **1. GRUMPY IS GOOD IN MEETINGS...**

Studies show that having grumpy, discontent attendees in a meeting may just be the way to inspire creativity as disgruntled members often won't accept the status quo, will voice their opinion and challenge any 'group think' mentality. Consider this when you want creative ideas and diversity of opinion.

## **2. FUEL YOUR ATTENDEES' BRAINS!**

Neuroscientists generally agree that not taking enough calories on board has a negative impact on brain performance in areas such as memory and reaction times. The solution for conference organisers is to ensure attendees are offered brain fuel throughout the day focusing on complex carbohydrates that provide a continual energy source for the grey matter.

## **3. A CONFERENCE CAFFEINE FIX?**

Moderate amounts of caffeine have been shown to positively affect our brain's performance in areas including visual selective attention, task switching, conflict monitoring and sustained attention within a relatively short time. So offer coffee at your next conference - but encourage attendees not to over do it!



**mental**

brain performance, thoughts & emotions

## **4. MEETINGS MEDITATION**

It may sound far fetched but the science around this research was front page news in the meetings industry recently. It looks as if meditation aids mental performance resulting in a reduction in stress, increased creativity and the ability to focus for longer for those who practice it. Is it time you offered meditation at your next conference?

## 5. TRAIN THE BRAIN FOR A BETTER MEETINGS MEMORY?

We've all been there - we see a familiar face at a congress but can't recall their name or where we first met them.

Some neuroscientists are now advocating the use of video based brain training exercises that have been shown to enhance specific brain function including memory; how long before you offer brain gyms at your conference?

---

## 6. SMILE LIKE YOU MEAN IT

We can all spot a fake smile at a meeting right? Well even if your colleagues can't it seems that faking it is bad for our emotions too.

Research shows that faking a smile worsens our mood and affects productivity whilst the opposite is the case when we genuinely smile.



**social**

interaction, influence & persuasion

## 7. THE POWER OF SOCIAL PROOF

When trying to encourage registrations to your conference, psychology can give you a helping hand. Research indicates that humans are more likely to copy others behaviors if they know many others have already made that same choice. Heavily advertise the number of registrations if they are of a decent number as others are likely to follow.

## 8. SMALL IS BEAUTIFUL

Conferences are generally large affairs but that doesn't mean you shouldn't encourage smaller group meetings. In larger groups people tend to rely on others to engage and interact when compared to smaller groups so much smaller break out sessions are proven to be of value.

## 9. IF YOU WANT PEOPLE TO EMPATHIZE WITH YOU... MAKE A MISTAKE.

Empathy helps build bonds between humans and research suggests that people may just have more empathy for you if you actually make a mistake. If it happens in a meeting accept it, acknowledge it and move on - it may just be the event that factor that secures the business!

## **10. ALL MALE CONFERENCE? BAD IDEA...!**

Research suggests that having a similar mix of each sex is important in group psychology and performance. Although meeting face to face and creating a good working environment were both shown to be important so was having enough females in the group. Women tended to be more socially sensitive and intelligent.

.....

## **11. TOO MUCH CHOICE?**

Education session, hotels, menus and off-site activities - you may want to offer the world to conference attendees in truth it may be best to limit the options. Research suggests that too much choice can in fact put people off making decision and that limiting the options to a total of 3 may be the best strategy.

## 12. MIX UP YOUR CONFERENCE GROUPS

If you want creative breakout sessions it seems important to change group personnel often. Whilst members reported a less friendly group, those in groups whose membership was regularly changed were actually more creative.

.....

## 13. MAKE THEM SMILE

Although 'humor' is a very subjective the power of laughter on the performance of your attendees is undoubted. Making delegates laugh at a conference can help dispel tension, aggression, unify the mood and behaviour of a group but most importantly aid negotiations. Now you just have to find a joke that everyone will find funny!



space

the perfect meetings environment

## 14. IT SMELLS RIGHT

Psychologists have long been aware that the environment in which we meet affects us and it seems that smell plays a major part in this.

Research shows that smell can affect mood, behaviour, enjoyment and memory of an event so maybe it is time to start to incorporate this interesting area into meetings?

## 15. THE POWER OF PLANTS!

It seems that bringing nature into the conference environment may have a remarkable impact. Psychologists have measured a 15% increase in creativity when natural plants were introduced whilst other studies have found that the color sky blue increases creativity too. Could you bring these colors into your next event?

## 16. A PICASSO OR A DA VINCI?

Research suggests that environmental 'priming' has a big impact on how people perform at meetings. One study showed that when people were exposed to creative art they were far more creative themselves. This area has huge implications for conference and meeting design.



space

the perfect meetings environment

## 17. CAN YOU FEEL THE HEAT?

Have you ever considered how the temperature of the conference environment affects our feelings?

Research suggests for example that when we meet someone when holding a cold glass of water we will see them as having a colder personality as opposed to those who we meet when holding a coffee who we see as warmer and more friendly.

## **18. CREATE A PLAY AREA**

A large and ever growing area of research suggests that playing and having fun aids creativity - so why not in meetings? We've designed meetings with pinball machines, juggling and table soccer so why not incorporate into your next event?

## **19. A CONFERENCE TUNE?**

With repetition the brain can be encouraged to associate a feeling or emotion with external stimuli. Music can be one such powerful stimulus and some effective conferences have used the same music year after year to open plenary as well as break out sessions.

## **20. CREATING CONNECTIONS**

In the 1970's, and based on psychological research, Steve Jobs went about overseeing the complete redesign of the environment in which his employees worked. His goal was simple - to create a space where people were forced to meet rather than closed separate areas. Research suggests that giving attendees the chance to simply mingle will aid creativity.



**wired**

the latest meetings technology

## **21. COMPUTER DESIGNED CONFERENCE ROOM?**

We know that the conference environment affects behaviour but did you know that computer software can help?

Software programmes exist that help interior designers design the best layout for rooms based on eliciting specific behaviours. Useful for a conference? We think so.

## 22. ENHANCING COLLABORATION

The digital world offers a variety of solutions to work alongside face to face interaction. From real time congress voting and feedback technology, online post-session collaboration platforms to computer based ‘Negotiation Ninjas’ who negotiate the best price on your behalf, exploring how technology can aid your event is a must.

## 23. SHAKE ON IT – HYGIENICALLY

Whilst shaking hands with other attendees is standard practice in fact your conference attendees risk encountering numerous germs by doing so. UK based electronics firm Dyson have filed a US patent for a tap that may become the norm in congress centers internationally. The technology allows the tap to provide water and soap but then additionally dries the user’s hands all from the standards tap location next to the sink.



**wired**

the latest meetings technology

## **24. CONFERENCE NAVIGATION**

Ensuring attendees find their way around can often be a tough job for organisers. Now technology that helps us navigate on a macro level has been developed to help on a micro level too with interior navigation now available on smartphone and potentially implementable with a conference situation.

## 25. LOSE YOUR SMARTPHONE?

Whilst technology aids, conference organisation research suggests that when constantly engaging with it (such as checking emails/social media) conference attendees may become less productive. It could be good to encourage attendees to occasionally 'disconnect' from their smartphone at a conference.

.....

## 26. REBOOT YOUR BRAIN.

It might sound crazy but scientists are now using technology that allows them to send an electrical current to certain parts of the brain to aid specific functions like memory or movement. Does the future of conference organising include transcranial stimulation for attendees?



**physical**  
wellbeing, diet & exercise

## **27. INTERNATIONAL ATTENDEES? LIGHT MAY BE THE ANSWER.**

International conferences by their definition attract a global audience from multiple time zones. Ensuring attendees have access to the right type of light (daylight or light box) may be the answer in helping them overcome the impact on meetings performance.

## **28. WHY OFFER A MORNING RUN AT A CONFERENCE.**

You see it more and more - the conference morning fun run. Exercise science points to a host of benefits from engaging in physical activity including the fact that you're attendees are likely to feel better throughout the day.

## **29. MAKING SURE THEY GET THEIR 8 HOURS!**

More and more research shows that sleep is crucial to an attendee if their body and brain is going to perform at it's best. Lack of focus, fuzzy memory and other cognitive impairments have been measured when we don't get enough shut eye - so shut the hotel bar at 10pm!



**physical**  
wellbeing, diet & exercise

## **30. MIDDLE AGED? EXERCISE WILL MAKE YOU SMARTER AT MEETINGS.**

A study has shown that high intensity exercise not only makes middle aged people fitter but smarter too. Admittedly this was over a few months but their cognitive function improved considerably according to neuroscientists at the University of Montreal. More reason to introduce exercise to your congress?

## **31. OFFER PLENTY OF PROTEIN.**

If you want to avoid unhealthy snacking by your attendees research suggests that offering them a protein rich breakfast (e.g. eggs, cheese, fish, yoghurt) will keep them fuller for longer.

.....

## **32. SODIUM FOR LESS STRESS IN MEETING**

Whilst high levels of sodium have regularly been associated with an unhealthy lifestyle it seems that salty snacks do have an unexpected benefit - they seem to help reduce social anxiety which is a real issue for some people attending large congresses. It seems like a small pack of salted peanuts may not be too bad after all.



**bizarre**

weird, wonderful, but true!

## **33. SMELLS LIKE A GOOD CONFERENCE**

As we have mentioned the power of unconscious nudges on humans is fascinating. Did you know that if you leave a scent of cleaning fluid in a meeting space attendees are more likely to clean up after themselves? What other behaviours could you elicit via smell?

## 34. MEET ON THE FLOOR?

Introducing different meeting environments is becoming more common in well designed conferences and maybe this should mean no chairs at all. Scientists have shown that when we lie down the blood flow changes affecting the part of our brain which improved problem solving and creativity.

## 35. LOSE THE MOVING WALKWAYS

Research suggest that if you are trying to move people around in a large congress center they will move faster if they walk than if they are given the chance to use the moving walkways.



**bizarre**

weird, wonderful, but true!

## 36. BORING CONFERENCES FEEL LONGER

It looks as though if your attendees are bored then time will really drag on for them. Research indicates that when unstimulated we estimate that less time has passed. More reason to create a stimulating experience at your next event.

## 37. ENCOURAGE DOODLING

Science says its OK to doodle in meetings so don't worry if your conference attendees do! Researchers noted a rise in the levels of recall from doodlers as opposed to those who didn't so don't always assume those who are doodling in your conference are not paying attention.

## **38. MEET SOMEWHERE EXCITING!**

The connection between emotional state and attraction indicates that holding your meeting in an emotionally stimulating place (top of a mountain/rollercoaster) may lead to better connection between attendees.

.....

## **39. ASK THEM TO THINK OF THE ONE THAT THEY LOVE**

A psychologist has found that when we think of the one we love we can become more creative. So, before you start your conference how about asking each attendee to visualize their true love. - it just may make a difference!

# REFERENCES

1. *When job dissatisfaction leads to creativity: Encouraging the expression of voice.* Prof Jing Zhou & Jennifer George, Rice University, Houston, Texas. *Academy of Management Journal* August 2001, Vol. 44, pg. 682
2. *Hey stupid! How your eating habits can make you dumb.* Susan Carnell, Ph.D., Research Psychologist, New York Obesity Research Center and Columbia University, USA. *Psychology Today* October 2009
3. *Caffeine Modulates Attention Network Function.* Brunye et al. (2010). *Brain and Cognition*, Vol. 72, 181-182. *Effect of Caffeine on Sensory Vigilance Task Performance-I: Under Low Demanding Condition.* Trayambak et al. (2009). *Indian Journal of Social Science Researchers*, 6, 8-16.
4. *The Effects of Mindfulness Meditation Training on Multitasking in a High-Stress Information Environment.* David M. Levy et al. University of Washington. *Proceedings of Graphics Interface*, June 2012
5. *The Influence of Perceptual Training on Working Memory in Older Adults;* Anne S. Berry (et al.) Department of Neurology and Physiology, University of California & Posit Science Corporation, San Francisco, California. July 2010
6. Brent Scott et al, Michigan State University, USA. *Academy of Management Journal* February 2011.
7. *Influence: Science and Practice* (4th edn), Boston, MA. R.B. Cialdini
8. *Social Loafing: A Meta-Analytic Review and Theoretical Integration.* S.J. Karau & K.D. Williams *Journal of Personality and Social Psychology*, 65, pages 681-706 (1993)
9. *The Effect of a Pratfall on Increasing Interpersonal Attractiveness.* E Aronson et al. University of California. *Psychonomic Science*, 4, pages 227-8 (1966)
10. *Evidence for a Collective Intelligence Factor in the Performance of Human Group.* Anita Williams Woolley et al. Carnegie Mellon University, Pittsburgh. *Science* October 2010. Vol. 330 no. 6004 pages 686-8
11. *The Paradox of Choice.* B. Schwartz, ECCO (2004)
12. *Creative Idea Generation: Harmony Versus Stimulation.* C.J. Nemetz and M. Ormiston. *European Journal of Social Psychology*. 37 (3), pages 524-35
13. *Humor As a Technique of Social Influence.* K O'Quinn & J. Aronoff (1981) *Social Psychology Quarterly*, 44 pages 349 - 57
14. *Can ambient scent enhance the nightlife experience?* Dr. Hendrik Schifferstein, et al (2011) Delft University of Technology, Netherlands. *Chemosensory Perception*; May 2011
15. *Color and Psychological Functioning: The Effect of Red on Performance and Achieving Contexts.* A.J Elliot et al (2007). *Journal of Experimental Psychology: General*, 136, pages 154-68
16. *Automatic effects of deviancy cues on creative cognition.* Jens Forster et al. University of Bremen, Germany. *European Journal of Social Psychology* 35, 345-359 (2005)
17. *Experiencing Physical Warmth Promotes Interpersonal Warmth.* Lawrence E Williams et al. University of Colorado at Boulder. *Science*, Vol. 322 no. 5901 pp. 606-607 (2008)
18. *Eight Ways to Boost Creativity (Be More Playful)* Alison Motluk. *New Scientist* May 2009 pg. 36
19. *Jingle hells: How muzak messes with your mind.* Trevor Cox, *New Scientist* 23rd December 2010

# REFERENCES

20. *How Pixar Fosters Collective Creativity*. Ed Catmull *Harvard Business Review*, September 2008
21. *Rearranging the furniture? Let software do it for you*. Paul Marks, *New Scientist*, 4th May 2011
22. *I'll Give You a Tenner for that*. Zoe Kleinman. Technology Editor [www.bbc.co.uk](http://www.bbc.co.uk) May 2009
23. *Dyson patents the tap that also dries your hands*. *NewsScientist.com* December 2012
24. *Navigation app gives you freedom to explore*. Staff writer. *New Scientist*. September 2010
25. *31 Ways to Get smarter in 2012*. Sharon Begly *Newsweek*. January 2012
26. *Visual memory improved by non-invasive brain stimulation*. Richard Chi, et al University of Sydney *Brain Research* Volume 1353, 24 September 2010, Pages 168–175
27. *Taking the Lag out of Jet Lag through Model-Based Schedule Design*. Dean DA , II, Forger DB, Klerman EB (2009) *PLoS Comput Biol* 5(6): e1000418. May 2009
28. *Increased substrate oxidation and mitochondrial uncoupling in skeletal muscle of endurance-trained individuals*. Douglas E Befroy et al. Yale University School of Medicine. *Proceedings of the National Academy of Sciences of the United States of America*. October 2008
29. *Astrocyte-Derived Adenosine and A1 Receptor Activity Contribute to Sleep Loss-Induced Deficits in Hippocampal Synaptic Plasticity and Memory in Mice*. Ted Abel et al. *The Journal of Neuroscience*, May 2011
30. *Exercise makes middle-aged people smarter*. University de Montreal. *Science Daily*, Oct. 2012.
31. *Skipping breakfast can lead to unhealthy habits all day long*. Institute of Food Technologists (IFT). *Science Daily*, June 2012.
32. *Elevated levels of sodium blunt response to stress, study shows*. University of Cincinnati Academic Health Center. *Science Daily*, May 2011.
33. *Smells like clean spirit: unconscious effect of scent on cognition and behaviour*. R.W Holland & M. Hendricks, *Psychological science* 16(9)689-693 (2006)
34. *Thinking on your back: Solving anagrams faster when supine than when standing*. Darren M. Lipnicki & Don G. Byrne, School of Psychology, The Australian National University, Canberra. (2005)
35. *Evaluation of Pedestrian Walking Speeds in Airport Terminals*. Seth Young *Transportation Research Record* January 2007
36. *Observers Exploit Stochastic Models of Sensory Change to Help Judge the Passage of Time*. Misha B. Ahrens, Maneesh Sahani, *Current Biology*, 21, Issue 3, 200-206, January 2011
37. *What Does Doodling Do? Professor Jackie Andrade, Ph.D., School of Psychology, University of Plymouth. Applied Cognitive Psychology*, Volume 24, Issue 1, pages 100–106, January 2010
38. *Love at First Fright: Partner Salienc e Moderates Roller-Coaster-Induced Excitation Transfer*. C.M. Meston & P.F. Frohlich. *Archives of Sexual Behavior*, 32, pages 537-44
39. *Why Love Has Wings and Sex Has Not: How Reminders of Love and Sex Influence Creative and Analytic Thinking*. Jens Forster, University of Bremen, Germany. *Pers Soc Psychol Bulletin* November 2009 35: pages 1479-1491.

THE APPLIANCE OF SCIENCE:

# 39 WAYS TO IMPROVE YOUR MEETINGS



**This guide has been supported by  
the PCMA Education Foundation**

T. +44 (0)1273 903 802  
E. [info@meetology.com](mailto:info@meetology.com)  
W. [www.meetology.com](http://www.meetology.com)



**the meetology® group**  
exploring the science behind effective meetings



Published by the Meetology® Group. Registered Office: Bank House, Southwick Square, Southwick, East Sussex, BN42 4NF, UK. Registered in the UK No 6296241. Meetology® & Meetings Mindset® are internationally registered trademarks. No part of this publication may be reproduced without written permission from the publisher. © All rights reserved 2012