

ClickShare

Science of Success:

How to keep people engaged during meetings

A global research study on meeting room engagement



BARCO



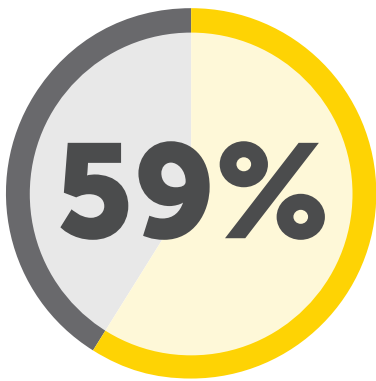
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Executive Summary

The issue

In business, there's no getting away from the need to have meetings; to collaborate, to run through figures or to get your point across. The sheer number of meetings scheduled for an individual throughout the day can affect their engagement.



of people feel their engagement was affected by the number of meetings in a day.

“If things go wrong, it has ramifications, sometimes almost unseen by the people in the audience ”

Dr Peter Collett

Once a meeting is underway, it's reasonable to assume that engagement levels are governed by the quality of the speaker. There have been many studies that focus on those presenting.

This study, however, was to establish a unique insight into the audience perspective, what elements affect their engagement and what factors should be considered when preparing for an important presentation.

Our study

Quantitative

We carried out a survey of 2,250 senior business professionals in the UK, US, France, Germany and UAE to gain insights into what factors can affect engagement. These results were collated to create a global perspective on engagement in meetings.

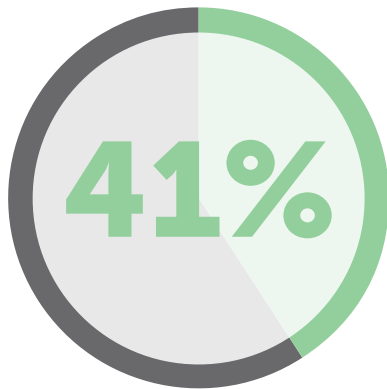
Qualitative

To qualify the survey results we chose an objective and accurate method using EEG attention protocol technology. This small-scale experiment was carried out by Myndplay, where the participant's brain activity was monitored by Dr Mervyn Etienne (Neuroscientist). The test participant's body language was analyzed during the experiment by Dr Peter Collet (Behavioral Psychologist).

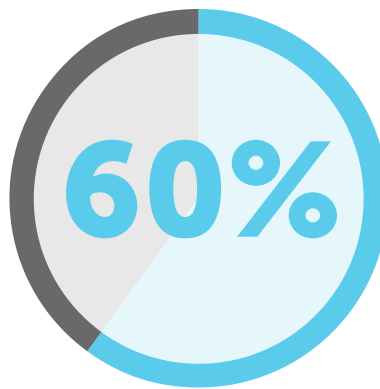
The findings

These have been listed in order of importance, such as:

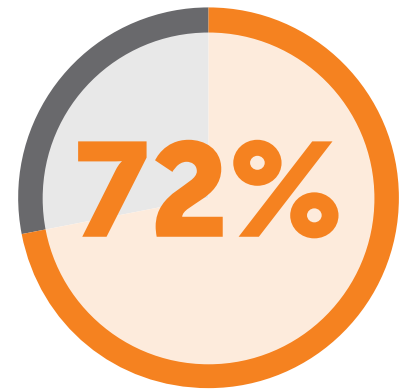
Technology **Stage setting** **Presentation content** **Interruptions** **Introducing food**



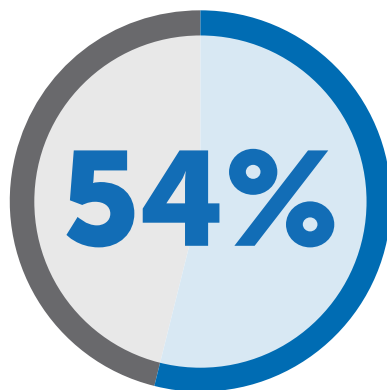
of respondents
felt that tech issues affected their engagement



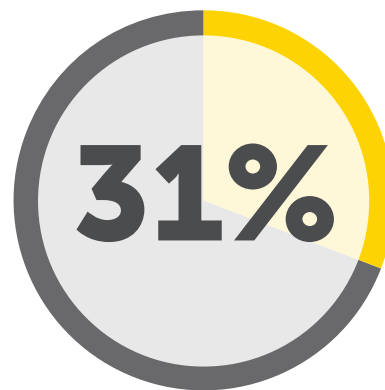
of respondents
stated that seating position affected their engagement in a presentation



of respondents
feel that they are more engaged when multimedia is used within presentations



of respondents'
engagement levels were impacted by interruptions



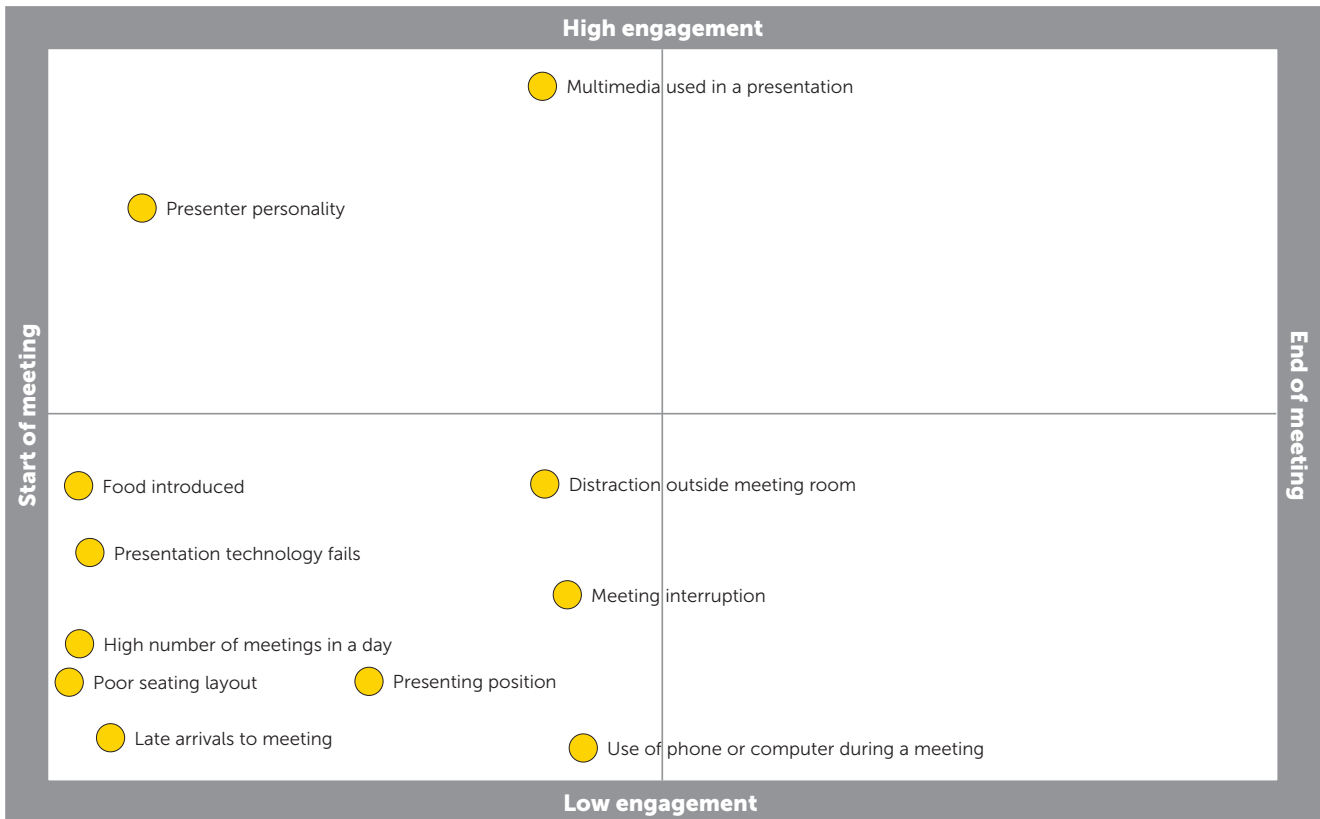
of respondents
are distracted by food

Impact on engagement

- A poor experience with technology negatively affects the way the audience judges the presenters – not just the overall presentation experience.
- Big views or vistas create distractions. Equidistance between presenter and all participants is important for inclusion.
- When technology works it starts a meeting with high engagement. Content is still key – lack of graphics/multimedia can lose the audience. The number of meetings in the day also affects engagement.
- Presentation success is all in the hands of the presenters and how they handle the interruption with their flow. Avoid interruptions as, even when you have the audience fully engaged, there is a fall in overall attention span.
- Snacks in the room are mood enhancing but detrimental to focused attention. The more food available throughout the meeting, the more attention is split.

Engagement index

The engagement index plots the different factors impacting participants during the course of a meeting from low to high, gathering the results of both quantitative and qualitative research.



7 secrets to meeting success

- 1. Ensure the technology is working.** Get there early and make sure everything works perfectly.
- 2. Create the perfect room set-up.** Make sure everyone can see you and the main screen. And if the room is big enough, why not try walking around to interact with people at the back.
- 3. Jazz things up with multimedia.** Create a dynamic, engaging presentation. Keep your slides minimal. With the right technology, you can increase engagement by making the meeting interactive and allowing more people to share ideas.
- 4. Start on time, at the right time.** It's best to hold meetings early in the day, before people get tired.
- 5. Keep interruptions to a minimum.** Ask people to mute their phone – or don't bring them to the meeting at all. Make sure everyone knows when the meeting starts to reduce late arrivals.
- 6. Be careful with food.** Offering food can help ensure a good turnout and keep people happy, but get it out the way early or avoid holding meetings over lunch when people are hungry.
- 7. It's about you too.** If you're not engaging, your guests won't be engaged. Practice and inject plenty of personality.

Introduction

Barco ClickShare conducted a study, in collaboration with research company Myndplay, to discover how different factors affect meeting room engagement, and uncover the secrets to meeting success.

Meeting room engagement

There have been many studies conducted and training advice given about becoming a better presenter, but very little coverage about the audience and the factors that impact their engagement.

Meeting room engagement takes many factors into consideration, including meeting room technology, the set-up of the environment, the presenter's attitude, attendee distractions and other distractions such as window views, food etc.

Methodology

The information was gathered via a quantitative survey amongst 2,250 senior business professionals from the UK, US, France, Germany and UAE. In the

survey, we gained insights on what factors could affect engagement, such as technology, room layout, interruptions, presentation content and food.

The survey was complemented with a scientific experiment to identify the keys to a positive presentation experience based on the responses of four senior business leaders. The participants were connected to EEG Brainwave monitoring technology, which was used to monitor their levels of attention as they were asked to watch and rate 5 x 10 minute presentations by professional presenters. During the presentations, we introduced and tested the same factors in the survey to assess how they affected the attention and overall experience of the audience. The brainwave results were monitored by Dr Mervyn Etienne (Neuroscientist). The test participant's body language was analyzed during the experiment by Dr Peter Collet (Behavioral Psychologist).



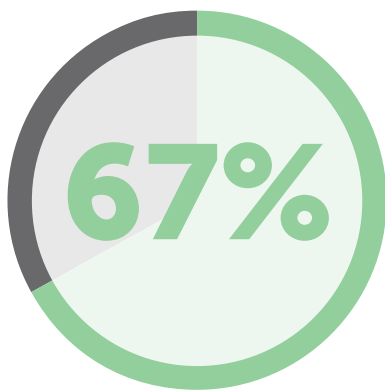
Impact of meeting room technology

Methodology

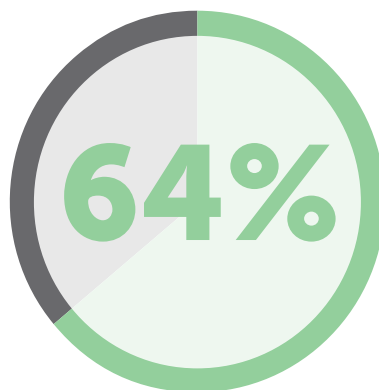
Our survey asked whether engagement drops when tech fails, how often do tech issues occur and if respondents get irritated if tech fails or if multimedia is not used.

In the qualitative experiment, we measured audience engagement levels and emotional response on meeting technology. In one scenario, we tested a tech failure. After failing to connect his laptop to the meeting room screen, the presenter decided to show the presentation on his own laptop.

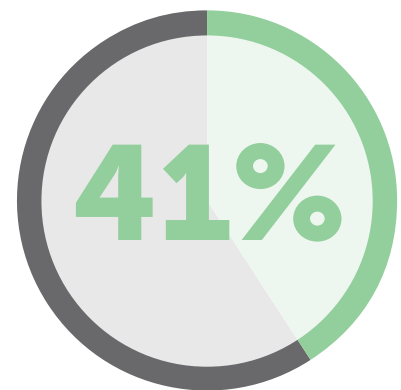
The findings



of respondents
are irritated by tech issues



of respondents
feel that they are most likely to experience some tech issues



of respondents
felt tech issues affect their engagement

Our survey established that most meeting attendees expect a tech failure and are irritated when this occurs. Further to this, a tech failure affects their engagement.

In our experiment, we tested this scenario with a failure of connectivity and the visual material for the presentation not appearing on the meeting room screen. This unfortunate incident unsettled the presenter and it had a negative impact on the audience. The body language of the participants during this trial showed reactions varying from disappointment and disinterest to empathy. Out of all the conditions the EEG results show that having to follow the presentation on a small laptop screen required the most attention. The scenario left an overall negative effect. When asking the business executives to rank the performance of the different

presenters, this one received the lowest score, even though he was complimented for his performance at the end.

“Normally, you would expect the tech failure to have a universal effect on everybody, but it appears not to.”

Dr Peter Collett

Poor stage setting

Methodology

We asked respondents of the survey whether they are distracted by things outside the meeting room, or affected by where the presenter stands and where they are sat in the room.

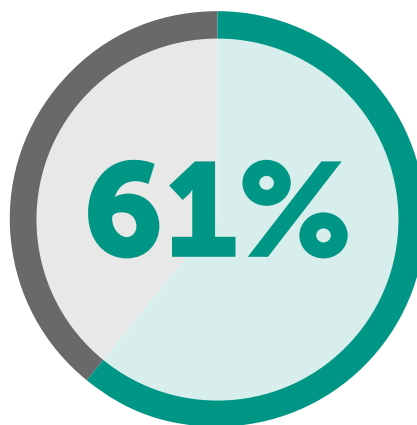
During our experiment, the participants' engagement was tested by lifting blinds to offer an inviting and distracting spectacle of the skyline and altering the table and seating so that two participants were located right by the presenter while the other two participants were positioned some distance away.

The findings



of respondents

stated that seating position affected their engagement in a presentation



of respondents

stated that the presenter's position affected their engagement in a presentation



of respondents

are distracted by things happening outside the meeting room, such as the view or people passing

Our survey results show that where the presenter stands and where the attendees sit within a meeting room affects the overall engagement. In addition, the environment outside the meeting room can impact the attendees' attention too.

Our seating arrangement during the experiment meant that the test participants sat at the front were more engaged, compared to those at the back who

seemed bored and on the verge of falling asleep. This is backed up by the correlation and disparity between their EEG results. All four respondents found it difficult to restrain themselves from looking out the window, with the two farthest away from the presenter visibly glancing out.

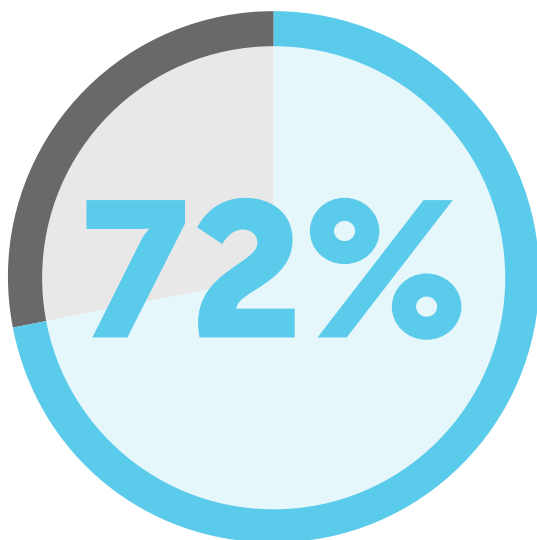
Presentation frequency and content

Methodology

Our survey asked what the impact on engagement is when multimedia is used in presentations, and how the number of meetings can affect engagement, to determine the ideal presentation content.

During our experiment, we introduced a presenter with a poorly prepared, low interactive presentation to see how our participants would respond to the content.

The findings



of respondents

feel that they are more engaged when multimedia is used within presentations



of people feel

their engagement is affected by the number of meetings in a day

Meeting fatigue is an all too familiar feeling, backed up by our survey results. If you are lucky to catch people at the beginning of the day, we can see that using multimedia can overwhelmingly increase engagement as opposed to text-heavy presentations.

During the experiment, the body language showed that the participants were not particularly impressed with the standard of the presentation. The EEG results showed that the presenter was off to a flying start and all four participants were immediately engaged and focused on the screen and the presenter; however, within a few minutes all participants had completely lost interest due to the content.

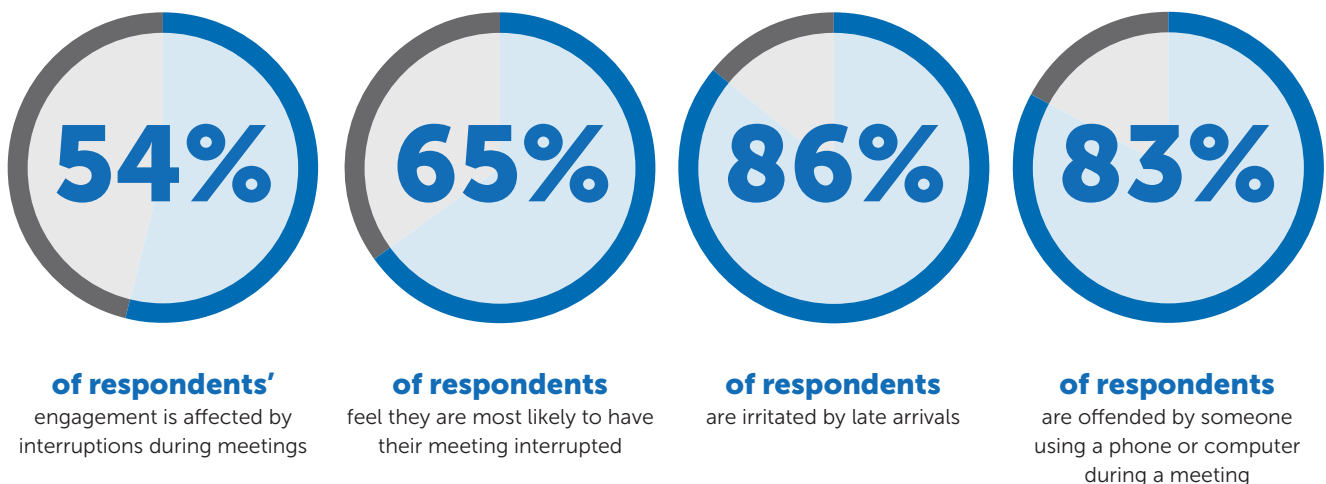
Interruptions

Methodology

Our survey asked what is the impact on engagement when meetings are interrupted, the impact of people arriving late and other attendees using a device during a meeting.

Our experiment was set up to test one of these conditions (a meeting interruption) with the arrival of a technician after a few minutes into the presentation, to measure the impact of a presentation in full flow.

The findings



Our survey shows that interruptions affect engagement, the most irritating being a late arrival. Over half of respondents were affected by other attendees having non-topic related discussions. The most offensive behavior is using a device during a meeting.

When we tested an interruption in the qualitative experiment, the body language evidence suggested that there was a dip in the middle of the presentation due to the interruption, with all the participants offering signs of inattention. The EEG results show that there was a residual effect of annoyance after the technician had left.

“ On the arrival of the technician, there was definitely a mood change.”

Dr Peter Collett

Introducing food

Methodology

Our survey considered the impact of food in meetings. We asked respondents about the frequency in which food is provided in meetings, whether it attracts attendees and if it distracts from the meeting presentation.

During our qualitative experiment, we introduced lunch just before the presenter walked in and left it on the table throughout. We wanted to measure the effect of food at the start and throughout a meeting.

The findings



of respondents
are likely to attend just for food

Our survey results show that more than half of the senior professionals we asked would attend meetings for food. But once food is introduced it can distract.

When we analyzed the body language during the experiment, it showed two effects. The first was that it had a leavening effect – it shifted the definition of the



of respondents
are distracted by food

occasion more towards that of a party, making the mood more informal and light-hearted. The second effect was that the snacks noticeably distracted the participants. The EEG results showed that their attention was divided between the presenter, the food and the other participants – something that hadn't occurred before the food appeared.

Impact on engagement

Impact on engagement

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EEG results and analysis

EEG & Attention Protocol

The level of engagement or stimulus driven attentional orienting is difficult to measure from subjective questionnaires. A more objective and accurate method is to measure the level of attention engagement using EEG technology.

The Attention Protocol is based on the empirical research conducted by Barry Sterman PhD, Professor Emeritus at UCLA researching focus and concentration in B2 bomber pilots.

The B2 is a highly complex plane to fly, despite computerized automated systems performing many of the tasks: pilots for this plane are carefully selected peak performers. On testing these pilots Dr Sterman found that the prefrontal region (situated at the very

front part of the head which deals with attentional deployment and integration of higher level cognitive functions), reduces brainwave activity in the 7-12 Hz frequency range (this encapsulates the alpha (8-12 Hz)) when concentration or focus is required. Dr Jonathan Cowan built upon this research to develop the proprietary algorithm; these were subsequently integrated into the Neurosky module, which is used in the MyndBand headset.

Sterman, M. B., Mann, C. A., Kaiser, D. A., & Suyenobu, B. Y. (1994). Multiband topographic EEG analysis of a simulated visuomotor aviation task. *International journal of psychophysiology*, 16(1), 49-56.

Goleman, D. (2013). *Focus: The hidden driver of excellence*. A&C Black.

Berka, C., Levendowski, D. J., Lumicao, M. N., Yau, A., Davis, G., Zivkovic, V. T., & Craven, P. L. (2007). EEG correlates of task engagement and mental workload in vigilance, learning, and memory tasks. *Aviation, space, and environmental medicine*, 78(5), B231-B244.

Meeting Room Technology

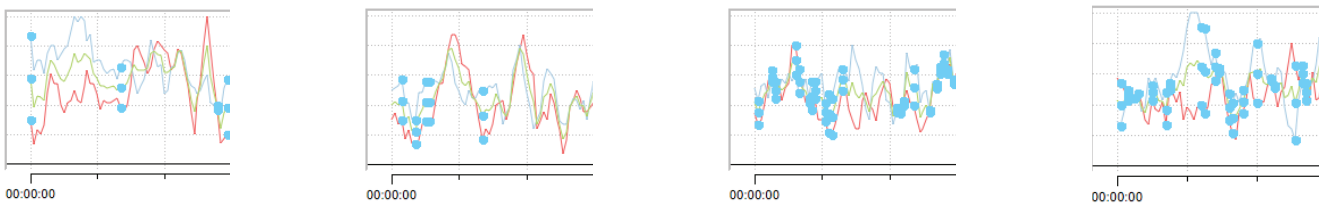


Image 1: Participants 1-4 from left. Scale 0-100 for Attention, Calm and Mental Zone

In the images above you can see the first minute of the presentation and the fluctuation of attention and calm response. The first 30 seconds of the minute are the tech failure and the following 30 seconds are when the presenter moved onto the laptop. Participant 1 engages when the presenter enters but when he notices the tech fail focus drops. As the presenter moves to the laptop you can see a big spike in attention but due to the smaller screen more attention is required and after 30 seconds the participants disengage completely. Participant 2 is interesting as he fully engages, when the tech error becomes apparent even though he is thrown off he immediately tries to regain attention but again after a

short time the attention drops and remains low. Participants 3 and 4 seem to have a similar reaction. Their focus is slightly reduced but their calm goes up, suggesting reflection or understanding of the scenario, however the lack of screen makes following the presentation difficult and again the positive engagement drops. Participant 4 had the most noticeable reaction as seen in the spikes and drops of calm as the tech failure becomes apparent. Of all the presentations, this one required the most attention from the participants, however it was not seen as positive and had an overall negative affect on the relaxation of the participants and therefore their overall experience.

Stage setting



Image 5: Participants 1,2 & 4 descending. Scale 0-100 for Attention, Calm and Mental Zone

The first thing we noticed in the results was the correlation and disparity between the attention scores of the two participants closest to the presenter (1&2) as opposed to the two who were farther away (3&4). The two closest scored in the top two for active attention, even though much of that time was distracted and uncomfortable.

The two farthest away had the lowest attention scores out of all five presentations in this scenario, with participant 1, who was farthest away, completely disengaging after two minutes.

Participant 4, which is the last graph, also shows heightened blink activity suggesting discomfort or nervousness.

Participant 2, which is the middle graph, is a professional presentation judge and is experienced in listening to presentations he may not necessarily have an interest in. You can see the difference in his brain response to participant 1 (top graph) who, as a senior decision maker, will not entertain it if he is not interested at all. However, participant 2, despite his active efforts of attention, was easily distracted and eventually averaged his second lowest attentions score – a close second to being distracted by food without any of the benefits.

Presentation frequency and content

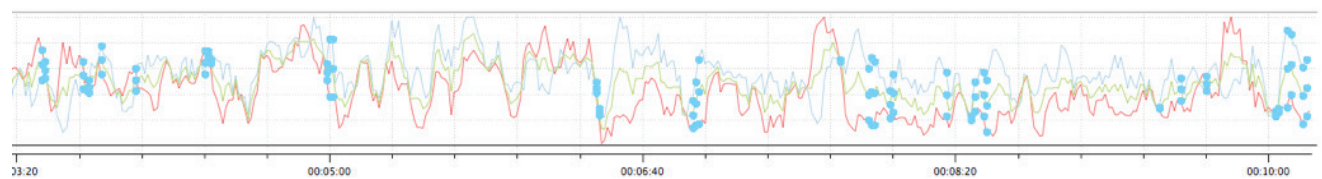


Image 2: Participant 3. Scale 0-100 for Attention, Calm and Mental Zone

The conditions were ideal in this presentation. The technology meant the presenter was off to a flying start and all four participants were immediately engaged and focused on the screen and the presenter; however, within a few minutes participant 3 had completely lost interest. In the graph above it shows participant 3 first loses interest at approx. 5 minutes and a then again at 6 minutes

and finally at 7 minutes completely disengages and lets his mind wander off. This highlighted the importance of having the right type of content on the screen. It is apparent from the initial and continued fluctuations of attentions that the content is of interest. Due to the presentation being text heavy and lacking visuals, the presenter eventually lost the audience.

Interruptions

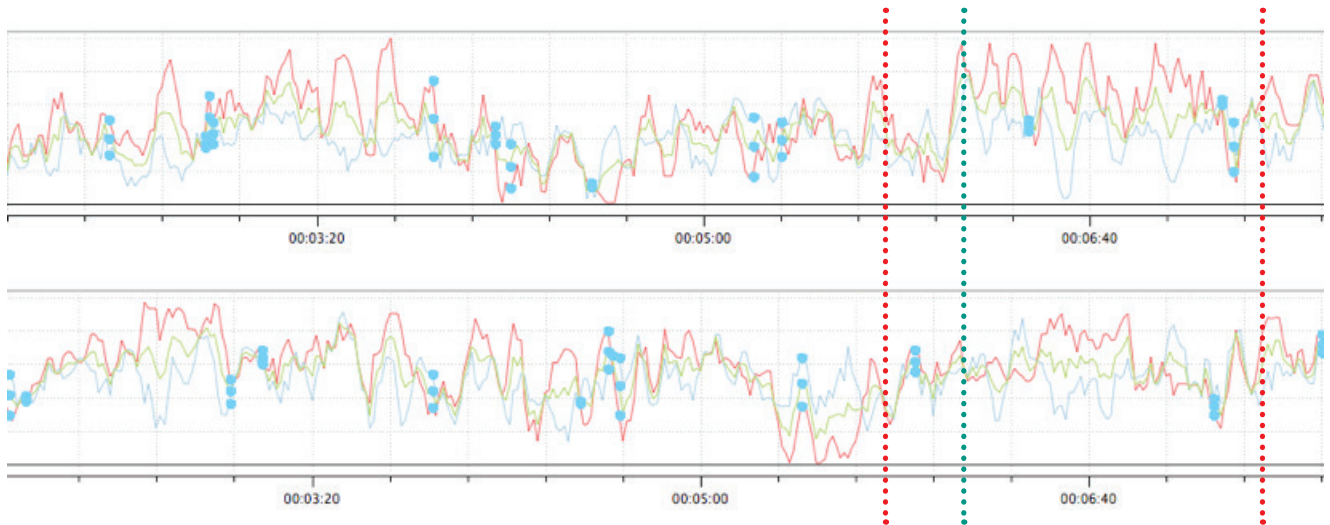


Image 4: Participants 1 & 2 descending. Scale 0-100 for Attention, Calm and Mental Zone

In the graph above you can see the first red marker, which shows the point at which there was a knock on the door. The second red line shows when the person causing the disruption in the room left. What was interesting to see, and a credit to the presenter, particularly for the two participants shown above, was how within a matter of 20 seconds, even though the person was still in the room and walking around, the presenter managed to get the audience back engaged with her.

However, despite her retention of attention, you can see around the 6-minute mark there is a clear split between the attention and relaxation response, suggesting that the participants were still aware and getting annoyed at the person who was interrupting. This had a residual affect for a short time after the person had left the room.

All participants displayed positive engagement with the speaker and content throughout the presentation, with this presentation providing the highest overall attention and engagement score for all participants unanimously.



Introducing Food

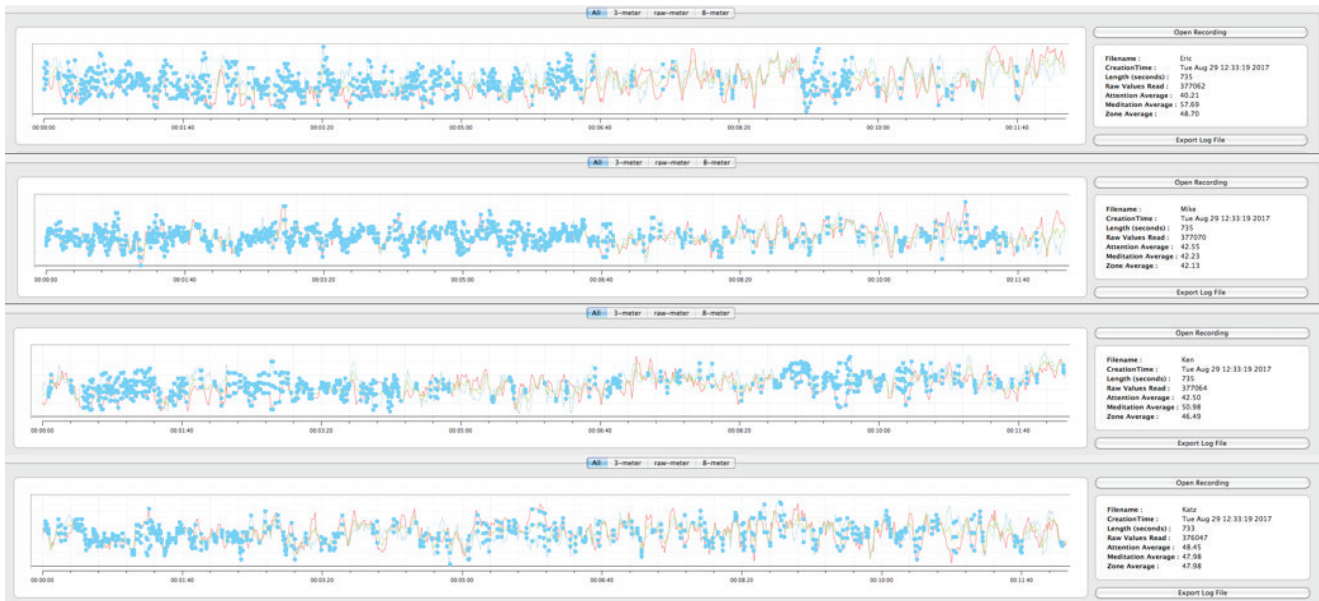


Image 3: Participant 1-4 descending. Scale 0-100 for Attention, Calm and Mental Zone

It is instantly apparent from the number of blue dots in the data above that there was significant chewing occurring during the entire presentation. We can clearly see that for the first half of the presentation there was continuing chewing and a lack of focus throughout.

What was interesting about this scenario is that it really did have a duality in both the brain and behavior. For all four participants, the average attention was significantly lower than the other presentations. However, due to the storytelling nature of the presenter, it allowed them to enjoy the presentation without having to focus on details and facts, and therefore became the highest rated and least focused presentation of the day with the most distraction.

It is also interesting that the presence of food, along with the compelling nature of the story, somewhat synchronised the responses of the audience, putting them completely in the presenter's hands to guide them as they focused on their food. You can see similar patterns in all four responses above.

We also noted that on the 10-minute marker all the participants were left on an attention and calm high, suggesting they wanted to show their appreciation at the end by fully engaging with the presenter before she left the room.

