Joint Research Centre

The Science Behind the Way We Work

Fix your meetings with science

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“Meetings are that thing where minutes are taken, and hours are wasted.”

Steven Rogelberg

1. Introduction: Meeting overload?

Meetings have become an integral part of the modern work culture, consuming a significant portion of employees' time. Over the past few decades, the amount of time spent in meetings has seen a remarkable increase. In the 1960s, workers in the United States spent an average of 10 hours per week in meetings, which more than doubled to 23 hours by 2017. [1]

This upward trend has persisted, with meetings consuming an ever-growing portion of the workweek. Since the turn of the millennium, the time spent in meetings has been rising by approximately 8% to 10% annually. A survey conducted on a sample of 182 senior managers revealed that 65% of them believe that meetings keep them from performing other tasks effectively.

In a survey conducted in 2021, employees reported attending an average of 62 meetings per month, with approximately half of those meetings deemed as wasteful.

These few data points underscore the pressing need for organisations to optimize meeting efficiency and find ways to mitigate their negative impact on productivity and time management.

2. The Challenge: If we cannot live without meetings, how can we best live with them?

We should dispense with the belief that we could free our work practice from meetings. Meetings are an essential component of our job, as they enable – amongst other things – collaboration, knowledge sharing, and team cohesion. In other words, meetings are here to stay. So, the question becomes, how can we ensure that we can get the most out of them? What principles and precautions can we follow in order to prevent meetings from becoming a wasteful time sink?

[1] Facts and figures about meetings are drawn from (Perlow et al. 2017).

Many of our meetings are left prey to casualties. We often do not pay enough attention to how we run them, how we structure them, and how we scope them. Many of us seem to go about meetings with the unspoken assumption that they should (and inevitably will) unfold spontaneously through the generative power of human conversation.

However, effective meetings require careful planning to ensure we can harness their potential, enabling desirable outcomes such as enhancing workflow coordination and generating novel ideas. Therefore, “fixing” meetings and our habits around them is a first step on the path to more productive teamwork.

3. The Science of meetings

The art of meetings is a surprisingly rich topic and so is the science of how to run meetings effectively. In what follows, we will uncover (but get nowhere near close to exhausting) some of the most interesting results from science that we can implement to improve the quality of our meetings.

3.1. The power of subtraction: Fewer meetings, shorter meetings

When required to solve an issue or improve ideas or situations, the human mind seems to default to additive transformation and systematically overlooks subtractive transformations. For instance, when asked to stabilize a Lego structure that could not hold because its platform was supported only in one corner (like a one-legged table), participants overwhelmingly chose to add new supports (at a cost) instead of simply removing the existing support (for free), which allowed the platform to sit flush on the layer below (Adams et al. 2021).[2] Similarly, and ironic as it may seem, we can easily imagine a team setting up a series of meetings to discuss solutions to their organisation’s meeting overload!

However, when primed to subtract subtraction (e.g. when reminded or encouraged to look also for subtractive changes), the human mind can overwrite its defaults and embrace alternative non-additive solutions.

We can see how strategic subtraction can be applied in two ways to meeting overload, by having fewer meetings and by having shorter meeting.

3.1.1. Fewer meetings

These scientific findings inspired [an experiment run at Asana by the Work Innovation Lab](). They developed a methodology to reduce the meetings overload which turned out to be highly effective by adopting a subtraction mindset.

This methodology comprised two main steps. Initially, a meeting audit was conducted where team members identified recurring meetings of little value. In the next phase, the "Meeting Doomsday", as it was coined, they removed all regular meetings with fewer than five attendees from their calendars for 48 hours. After this period, members repopulated their calendars, but using the meeting’s value (e.g. how productive or useful the meeting really is) as the sole criterion for selecting the meetings to keep. This process enabled them to eliminate some meetings permanently. A further outcome of this process, many meetings were shortened or reduced in frequency.

On average, each person saved approximately 11 hours per month, equating to about 3.5 workweeks per year, based on 8-hour workdays. The experiment was then replicated with a bigger sample size of 60 participants. Results from this larger experiment led to 265 hours overall saved per month. Interestingly, 70% of the time saved did not come from cancelling meetings that lacked value but rather from shortening those that were taking longer than needed.

3.1.2. Shorter meetings

The Asana experiment shows how a powerful way to reduce meeting overload is not only to remove altogether them but also simply to shorten them. A well known principle, which came to be known

[2] The whole study contains in total 8 experiments which all point to the human tendency to default to addition rather than subtraction in problem-solving.

as the Parkinson's law, states that "work expands so as to fill the time available for its completion".

Parkinson's law is not only a humorous motto but captures a common dynamic of many aspects of our work life, including meetings. As eloquently put by Steven Rogelberg, a leading researcher in the science of meetings:

> *"The majority of workplace meetings are exactly one hour long. Think about this for a moment: despite the fact that meetings vary greatly in purpose, scope, history, communication modality, and the number of attendees, they often are exactly one hour in length, and the sixty-minute meeting has been a cultural norm for decades." (Rogelberg 2019).*

It becomes then clear how several sixty-minute meetings are not held based on a real need but merely on the basis of a cultural norm or habit.

It is not uncommon, especially in an organisation like ours, for people to spend several hours in back-to-back meetings. Recent neuroscientific studies run at Microsoft's Worklab have shown how back-to-back meetings significantly increase overtime the average activity of beta waves, i.e. those associated with stress. This means that meeting overload can generate considerable level of psychological discomfort that is likely to affect both workplace productivity and wellbeing. Shortening meetings by 10 or 15 minutes may create room for breaks in between the train of meetings. This would give colleagues an opportunity to recollect their thoughts and refill their storage of attentional resources before joining the next discussion.

Other significant collateral benefits of having shorter meetings may result from aspects that have been largely investigated in marketing and consumer research. The so-called scarcity principle has shown how people tend to value more what is perceived to be scarce or exclusive (e.g. Cialdini 2009). Further research has broadened this finding and shown how restrictions can influence the allocation of attentional resources more generally. Indeed, a study from 2018 has shown how people tend to feel more compelled by and dedicate more attention to what is more urgent, even over what is generally deemed more important (Zhu et al. 2018). This principle could be leveraged instrumentally to increase meetings' productivity: having shorter meetings may indeed foster a sense of urgency that will likely heighten people's attention and keep them concentrated on the task at hand.

These different bits of evidence seem to converge around the same underlying principle: while being a valuable professional tool, meetings can also be "expensive" in terms of time and effort invested and should therefore be planned according to high efficiency criteria.

3.2. Effective meeting design: Planning & Facilitation

Research has defined the distinctive features of a meeting's composition, setting, and procedures as meeting design characteristics (Cohen et al. 2011). Wise decisions about meeting design characteristics can improve the quality of meetings on several dimensions (e.g. productivity, wellbeing, etc.).

Meeting design characteristics are potentially endless and the science addressing them is surprisingly rich. In what follows, we will focus on a few strategic features that are likely to bear major results on the quality of meeting and that related to two distinct moments in the meeting lifecycle: its planning and its facilitation.

3.2.1. Planning: Do we need a meeting or maybe just a chat?

Meetings can be an elusive entity. Many of us can relate to the experience of sitting in a meeting without having a clear idea of what is the reason behind it and the goals that it aims to achieve. All too often, we may ask ourselves "what am I actually doing here?". This lack of clarity can lead to confusion, inefficiency, and a sense of wasted time.

One of the most widely replicated and robust effects in all organisational psychology relates to the positive effects of goal setting (Locke & Latham, 2006). Well-defined objectives may lead to a double beneficial outcome: they guide and stimulate behaviour. Individuals with a clear goal tend to concentrate their efforts on actions that contribute to achieving that goal, while disregarding irrelevant activities. The specificity and clarity of goals is also crucial: specific and challenging goals yield superior outcomes compared to vague or "do your best" goals (Woolley et al. 2015).

A similar principle applies to meetings as well. Establishing clear goals ensures that attendees' attention remain focused towards task-oriented activities. This involves defining what the meeting aims to achieve, and which needs it intends to address. Is its purpose to generate new ideas, solve a problem, or align amongst various work strands? Once the goal is clearly articulated, participants gain a better understanding of their roles and what is expected of them. This clarity not only gives structure to the meeting but also enhances the productivity and satisfaction of the members attending it (Odermatt et al. 2015).

A tool that is complementary to clear goals is a meeting agenda. Having an agenda is a crucial tool that bolsters goal clarity and streamlines discussions during meetings. Acting as a guide, it ensures that the meeting stays on track and is properly streamlined. It facilitates the breakdown of overarching goals into specific conversation items to be discussed. It is not a case that research conducted by Bang and colleagues underscores the combined benefits of clear goals setting and focused communication, i.e. keeping the conversation focused on pre-defined agenda items (Bang et al. 2010). Clear goals and agenda items jointly led to improved task performance, better relationship quality, and higher member satisfaction.

The importance of having clear meeting goals ties back to what said in the previous section about having fewer meetings. Once the goal is clearly set, meeting's organisers can pause and ask themselves: "Is this outcome best achieved via a meeting or can it be better (or as effectively) achieved through other means of communication?". In other words, does the issue at hand demand the collective alignment and conversational dimension that only meetings can provide? If the answer to this question is affirmative, then the meeting can be scheduled. If not, organisers might opt for other, more efficient forms of asynchronous communication (e.g. a teams group chat). It might well be the case that the meeting that you just organised could have been an email or simply a chat on teams.

This approach may help counteract what seems to be a widespread "meeting-reflex", i.e. the default tendency to call a meeting for any issue that require more than one head. It promotes a more mindful use of colleagues' schedules, ensuring meetings are only convened when they are necessary and can deliver their best potential benefits.

3.2.2. Facilitation: Be punctual, inclusive and...silence, please!

Meeting organisers should be extremely mindful of a meeting scheduled time. Ensuring punctuality is crucial. Employees tend to perceive meetings as less disruptive to their work routine when scheduled time is maintained. Meetings that follow a good temporal courtesy maximise the time spent on task-related activities and are less likely to be perceived as disruptive events that keep employees from directing their attentional resources to their primary tasks (Cohen et al. 2011, Luong & Rogelberg 2005).

Interestingly, research indicates that satisfaction with a workplace meeting is correlated with the level of involvement and the amount of time spent talking during the meeting. It's noteworthy that leaders often speak longer during meetings and, as a result, tend to enjoy workplace meetings reliably more than their employees (Rogelberg 2019).

Therefore, it is essential for managers to encourage employees to voice their thoughts and ideas during workgroup meetings. Rather than merely soliciting feedback on specific decisions, managers should promote expression of ideas and opinions on the topics discussed. This can be effectively achieved in two ways, with breakout rooms and by silencing the leader.

Break out rooms are an especially effective strategy for larger meetings. Indeed, the risk with meetings with many attendees is that only a small proportion of the people involved participate to the discussion, while the others remain silent, multitask, or succumb to distractions such as checking their phones.
By dividing larger groups into smaller units, it is possible to create higher sense of accountability as people may feel less "camouflaged" with the large groups, hence more compelled to not get distracted and voice their thoughts. When the allotted time for break out rooms expires, the entire group reconvenes and the smaller groups, by means of a designated spokesperson, may report to the larger

group about the results of the discussion (Kreamer & Rogelberg 2020).

The "silence of the leader" (in reasonable amounts) can be beneficial to the overall quality of the meeting and ensures that their opinions do not disproportionately dominate the space of the conversation (Allen & Rogelberg 2013). Silence can be a powerful tool in meeting design more generally. A classic experiment run by professors Garold Stasser and William Titus looked at the issue of information sharing in meetings (Stasser & Titus 1985). What they found is that, in meetings, people tend to focus on the information that is common among all attendees and neglect information that is uniquely available to all of them. This situation can severely affect the quality decision-making.

Imagine you have two options: option "So-so" and option "Top-notch". Imagine that "So-so" would look better if people took into account only the commonly available information about it but that "Top-notch" would clearly appear as the best solution if all information about both options were to surface. If people in meetings tend to focus only on the information that is commonly available, option "So-so" would be picked over option "Top¬notch".

Silence can be a surprisingly effective remedy to such clogs of groupthink. Indeed, silence can enable individuals to collect their thoughts without being influenced by others and hence increases the likelihood that unique relevant information is shared with the broader group afterwards.

Studies have shown that this exercise, also known as brainwriting, improves not only the number of ideas produced, but also their quality (Rogelberg 2019). Brainwriting avoids the risk that whoever talks first (especially if it is the leader) may steer the discussion in one direction and hence constrain the generative power of collective intelligence (Hastie and Sunstein 2015).

To enhance psychological safety and comfort in sharing ideas, idea collection could be done anonymously on a shared document. After everyone has written down their ideas, the chair of the meeting can start tackling them in turn and eventually look for early patterns or synergies between ideas, before diving into the exercise of collective thinking.

This approach could be extended to collective decision-making and problem solving in general. Indeed, several organisations have embraced the practice of allocating the first minutes of a meeting for silent review of pertinent material necessary for an informed discussion of the problem at hand. Prior to the meeting, attendees may share with the broader group the relevant information (in a reasonably synthetic format) and require others to review it before the meeting or decide to invest the first minutes of the meeting in silently reading the resources provided (Mulgan 2017). This is largely compatible with a two step-decision making process wherein the group first concentrates on identifying the various facets of the issue at hand (identification stage) and only subsequently on selecting of the best options or solutions (selection stage). This method ensures that i) everyone is on the same page with the information required to optimally and meaningfully contribute to the discussion, and ii) that a wider array of options is freely identified before jumping into the actual decision-making exercise (Hastie & Susnstein 2015).

4. ACTs (Actionable Tips)

To summarise, here are a list of evidence-informed tips and strategies that can be followed to improve the quality of your meetings:

❖ Remove from your calendar useless or low-value meeting. Try following this method to help you with the process: Fixing meetings: A research-backed playbook.

❖ Have shorter meetings and abandon the 60 minutes social norm. Often more can be accomplished with less time.

❖ Give your meetings a clear purpose. After the purpose has been set, ask yourself: Does this task require a meeting or can it be effectively tackled otherwise.

❖ Have a clear and well-defined meeting agenda. Make sure to keep the discussion focused on the agenda items.

❖ Respect scrupulously the scheduled time of the meeting.

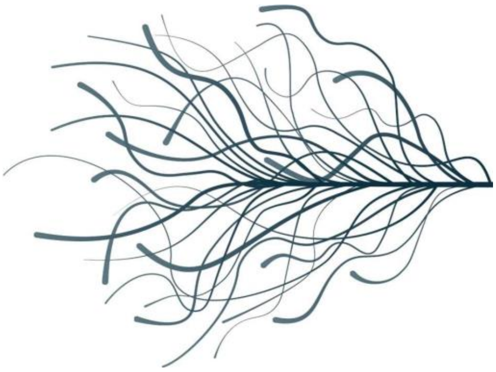
❖ Harness the power of silence to improve brainstorming. Use the brainwriting approach to share ideas beforehand.

❖ For collective decision-making: Focus on problem diagnosis first (i.e. identification of the various options, solutions, and relevant information) and only afterwards on prescription (i.e. selecting the best solution).

Tip for tomorrow…

…Look at your calendar, find at least one one-hour long meeting and try shortening it by 15 minutes.

In a nutshell



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The Challenge

Meetings are essential for many aspects of our work. At the same time, they are also one of the main sources of dissatisfaction, stress, and frustration. How can we make the best out of our meetings?

The Science

A vast body of research on the science of meetings reveal us that we have more meeting than we need and that they are usually longer than they should be. Studies show how paying careful attention to a meeting's design characteristics can help maximise their benefits and minimise their drawbacks.

The Solution

Eliminate low-value meetings, prefer shorter durations, and ensure a clear goal for each meeting. A well-defined agenda may help streamline the discussion. Utilise silent brainstorming for idea sharing and generation. In collective decision-making, prioritise problem diagnosis before solution selection.

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