

**Virtual Meetings Amplified: Leveraging Best Practices for
Greater Impact**

Authors

Dr. Mayuri Duggirala

Tata Consultancy Services
mayuri.duggirala@tcs.com

Varnika Naik

Tata Consultancy Services
varnika.naik@tcs.com

Parvathi Karthik

Tata Consultancy Services
karthik.parvathi@tcs.com

Novonil Bhattacharya

Tata Consultancy Services
novonil.b@tcs.com

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Abstract

At the height of the global pandemic, it had become imperative for most organizations to rethink their ways of engaging with remote teams across geographic, business, and technological boundaries. As most organizations return to hybrid and/or full-time work from office, engaging geographically dispersed teams remains a challenge. Virtual team engagement is therefore one of the key challenges facing managers today. Our study presents an approach to design and deploy a behavioral intervention focusing on meeting best practices and demonstrates the impact of the intervention on meeting effectiveness, in a large global IT services organization. Meeting practices such as their structure, duration, plan, and their implementation in virtual teams in a global organization are examined for their impact on meeting effectiveness. Findings and insights for future work are discussed.

Keywords: Virtual engagement; meeting science; agile approach, meeting characteristics, meeting effectiveness

Word Limit: 5755

1. Introduction

1.1. An Agile approach to enhance Virtual Meeting Engagement.

During the COVID-19 pandemic, organizations had to adapt rapidly to meet the demands of balancing business outcomes while meeting the needs of their employees at the same time. This has led to a seismic shift in the nature of work and its outcomes in most organizations. The proliferation of web conferencing technologies has been at the forefront of this transition to virtual work (Market Research Report, 2022). Companies like Microsoft Teams registered a nearly 200% growth in March 2020, registering a 2.7 billion meeting minutes (O'Brien, 2020), with close to 300 million users in 2023 (Statista, 2024). Similarly, the Zoom platform had recorded close to 3.3 trillion annual meeting minutes as of October 2020 (Dean, 2024).

With the remote and hybrid workplace models becoming a norm for the post pandemic workplace, there is an increasing need to examine the effectiveness of work practices in the context of virtual work. A recent study by Microsoft (Wiseman, 2021) on 30,000 people in 31 countries reported that in line with the demands for hybrid work, employers are making significant changes to their workspaces to accommodate virtual work; in parallel, close to 73% employees reported wanting to continue flexible work arrangements. The same study also reported their need for greater leadership awareness of employees needs related to hybrid work. Another work (Kost, 2020) based on analysis of emails and meetings of 3.1 million participants in 16 global cities showed an increase in the average workday by 8.2 percent or 48.5 minutes in the early days of the pandemic. The study further reported that the number of emails sent per day increased by 5.2 percent with 2.9 percent more recipients with about 8.3 percent more emails being sent after business hours.

Similar trends have been noted in research as well. Recent years have witnessed a proliferation of research on virtual teams and their effectiveness. A search on Google Scholar on 29th February 2024 for the term 'virtual teams' yielded more than 32,20,000 results overall, while a similar search on Google Trends indicated how interest in virtual teams is pervasive worldwide. These trends are likely to only grow from here on as the world adapts to virtual and/or hybrid work in a post pandemic landscape. While research in virtual engagement has proliferated over time, there have been consistent calls for demonstrations of real-world impact of meeting effectiveness as well (see for example Karl *et al.*, 2022).

From an organizational perspective, as organizations continue to grapple with the reality of long-term hybrid work arrangements it is becoming imperative for managers and leaders to have access to evidence on improving meeting effectiveness and virtual engagement using a theory-driven and systematic approach to virtual engagement strategy design and delivery (Rogelberg, 2019). In the backdrop of such sweeping changes in the organizational landscape it is also important to note that close to 70% of all change management initiatives are met with failure on account of factors ranging from organizational strategy, culture and environment, resistance to change, lack of vision, inadequate support, etc. (Emerson, 2024). Thus, the effective design and, deployment of organizational change in organizations today remains an open challenge (Ewenstein, Smith and Sologar, 2015; Burnes and Jackson, 2011).

In line with the above, we describe the design and implementation of a virtual engagement intervention exercise within virtual teams in a global IT services organization using the Agile project management methodology. This initiative was motivated by the challenge of engaging a virtual workforce, balancing critical business targets, meeting customer needs as well as

enhancing meeting effectiveness, employee wellbeing, productivity, and satisfaction among virtual teams spanning multiple locations and projects in one of the world's largest IT services organizations.

While we conducted the study at the height of the second wave of the pandemic, we find that the need for virtual engagement has only grown stronger as organizations and employees grapple with the reality of returning to office, hybrid work modes and challenges and opportunities present in evidence-driven virtual engagement best practices. Thus, the insights and takeaways from this work remain highly relevant today and offer key insights on driving organizational change in complex real world organizational settings.

The rest of the paper is organized as follows: we present a review of relevant research in virtual engagement, meeting science and other relevant dimensions, followed by the description of the Agile methodology, results and insights for research and practice of virtual engagement in global organizations.

1.2. Research on Virtual Teams

The use of information and communication technologies (ICTs) for work has been the subject of study for a few decades with the nature and extent of the use of ICT used to characterize work arrangements called by various terms such as telework, distributed work teams, virtual teams, remote work, hybrid teams and many more. Early descriptions of virtual teams covered aspects such as their geographical dispersion, cultural diversity, temporality, and related dimensions (e.g., Jarvenpaa and Leidner, 1999). More recent efforts have focused on the emergence of relational (friendship-related) aspects of virtual teams that play a critical role in the experience of relating to work (Schinoff *et al.*, 2020). A recent systematic review (Morrison-Smith and Ruiz, 2020) highlighted key aspects of virtual teams based on different aspects of distance coupled with other social, emotional and cognitive challenges faced by virtual teams.

Engagement is at the heart of virtual team functioning and has been demonstrated to have a significant impact on individual team and organizational outcomes. While several conceptualizations of engagement are available in the research, virtual engagement has been described recently as the social enactment of information and communication technologies in a larger relational context with a focus on cognitive, physical, and emotive aspects of virtual communication (Chewning, 2018). The processes and practices of communication in virtual engagement are thus important to examine closely in the context of both virtual and co-located teams. Other factors associated with effectiveness and engagement include attentiveness, expressiveness, and motivation (Tate *et al.*, 2019). Effectiveness in virtual teams is driven by factors such as the evolution of the team and the corresponding change in affordances of the technology for work (Gibson *et al.*, 2022), content, source, and level of feedback (Handke *et al.*, 2022).

Therefore, there have been a range of factors related to the individual engaged in virtual work as well as virtual work practices that can potentially drive better outcomes for greater effectiveness. However, there also have been calls to better address persistent challenges that this form of working will need to focus on to improve individual and team effectiveness in the post pandemic organization. These challenges include the need to foster and sustain trust (Jarvenpaa and Leidner, 1999), improve the process of communication, enhance psychological safety, and have a mechanism for timely assessment of teamwork (Feitosa and Salas, 2021).

1.3. Research on Virtual Engagement

Recent research has defined virtual engagement as ‘the social enactment of information and communication technology (ICT) as part of a larger relational context in which one connects with social, information, and resource networks in order to affect change, cocreation, and commitment toward a particular engagement object’ (Serrador and Pinto, 2015). Virtual meetings that use collaborative technologies to connect teams to accomplish shared goals are thus of significant importance to organizations that were forced to abruptly work remotely at the height of the COVID-19 pandemic.

As remote work continues to become the norm, research in virtual team engagement has demonstrated how working in business environments of varying complexity, size, industry context etc. can be significantly enriched with a closer focus on employee engagement as a primary lever for effective performance. Evidence suggests a 21% higher profitability for firms that engage better (Beheshti, 2019) and have 41% lower absenteeism (Jouany and Makipaa, 2022). There have also been distinctions made on planning virtual meetings compared to in person interactions. A recent paper proposed a decision framework for planning virtual or in person meetings based on four key dimensions, namely exchanging information, decision making, communicating sentiments, relationship building (Standaert, Muylle and Basu, 2022). Therefore, while there could be several attributes that are common for in person and virtual meetings, the aims and intended outcomes of meetings need to play a key role in determining the mode of meetings-virtual or in person. Going forward, in the hybrid work era, these considerations would be even more significant to ensure optimal meeting outcomes such as productivity, satisfaction and engagement.

Past research on employee engagement has described engagement as encompassing the individual’s experience with their work within an organization which further entails emotional, cognitive, and other behavioral dimensions. A review of the employee engagement literature over the past few years suggests that it comprises of three core components: vigor or energy one brings to work; dedication or the emotional resources one invests in work and absorption which refers to the cognitive focus one brings to one’s work (Bakker and Leiter, 2010).

There has been research on how engagement can be fostered, including but not limited to, better interpersonal and inter team communications (Walden, Jung and Westerman, 2017), role clarity, frequent and effective communication strategies, structured meetings, use of time management strategies (Bakker and Leiter, 2010), etc. Time management as a specific area has been the focus of attention as a driver of engagement in recent years. While these dimensions have led to insights on how virtual engagement can be enhanced, several challenges have also been documented. With the transition to the hybrid work mode, employees have also reported a rise in Zoom fatigue (Karl *et al.*, 2022) described as the experience resulting from prolonged use of video conferencing. Frequently cited causes of zoom fatigue include cognitive load, reduced mobility, excessive eye contact, etc. (Ramachandran, 2021). Employees have reported that most of the meetings that are conducted usually have a spillover, beyond the scheduled meeting time and frequently deviate from the primary the purpose of the meeting (Mroz *et al.*, 2018). Thus, meeting agenda, schedule and other characteristics of meetings are some of the primary dimensions of virtual engagement that need more focus from research, some of which has been defined in the area of meeting science discussed in the next section.

1.4. The field of Meeting Science

In recent years, the field of meeting science has gained prominence. Insights in meeting science research demonstrate how time wasted in meetings costs an estimated USD \$100 million and has adverse consequences to employee engagement and satisfaction (Cerullo, 2022). This stream of research focuses specifically on examining meetings, which have become the primary modes of work communication. Meeting science is described as a systematic exploration of what goes on before, during and after a meeting (Mroz *et al.*, 2018). In outlining meeting science as a distinct field as compared to related fields such as team research, there is emphasis on studying the characteristics of meetings themselves, such as their preparation, scheduling, interruptions, role in organizational culture and many more (Olien *et al.*, 2015). Recent work has also demonstrated how managers can better manage meetings to achieve critical work outcomes (Rogelberg, 2018, 2019).

The need for development of theory underlying meeting science has been articulated in past research with meetings viewed as rituals, sensemaking activities, stressors, collaboration technology, rituals and finally as interventions (Scott *et al.*, 2015). Our paper builds on research and practice from the field of meeting science, as well as frameworks in virtual engagement and computer-mediated communication in virtual teams in organizations, to create and test the behavioral intervention on virtual engagement in a real organizational environment. In doing so, we build on the meetings as interventions lens (Scott *et al.*, 2015) and demonstrate how meeting related dimensions impact meeting effectiveness in a large IT services organization.

The review above thus suggests the need for better management of meetings to foster greater work effectiveness. In past research there have also been calls for greater interdisciplinary research in real world settings to help ask and answer several critical issues related to virtual work and its effectiveness (Raghuram *et al.*, 2019). Recent research has witnessed the emergence of novel methods to examine these dimensions such as latent semantic analysis to examine themes related to virtual meetings from professional networks such as LinkedIn (Karl *et al.*, 2022), simulations to study the role of communication and context in virtual meetings (Anderson *et al.*, 2007), and field experiments on the use of the camera during meetings and its impact on meeting related fatigue (Shockley *et al.*, 2021). These efforts have indicated how the field of meeting science can be advanced using several multidisciplinary approaches to the study of better meeting practices and virtual engagement.

Accordingly, our work focuses on examining workplace meeting characteristics and outcomes, as meetings are the primary mode of communication on delivery of work outcomes in most organizations today. Studies show how employees spend a significant portion of their workday in meetings thus leading to low productivity, burnout, work spillover and other adverse consequences over time (Kost, 2020). In examining virtual engagement in workplace meetings, we use the Agile Methodology to implement a virtual engagement intervention via a field experiment focusing on virtual meetings in a large global services organization.

While our work builds on prior work on meeting characteristics and effectiveness, it also differs from past work in the following manner:

- Our work describes the design and deployment of an evidence-based meeting best practices intervention in a business setting.
- We adopt a multi-method approach with surveys measuring meeting practices and effectiveness at baseline, during the pilot and finally, at closure. Survey insights are further supported by qualitative inputs on the exercise from participants on a regular basis, in line

with practices in the Agile approach.

- The study uses the Agile methodology in implementing the interventions wherein continuous feedback helps participants stay aligned to the intervention and use it in their work effectively.
- We demonstrate how meetings are effective as intervention tools that can be used by distributed project teams to achieve their work goals.

Given the above, the following are the key contributions of our work:

- Design of an intervention based on meeting best practices.
- Deployment in a global organization using an Agile approach.
- Demonstration of intervention efficacy over a three-week period, based on an improvement of about 50 percent in meeting effectiveness at the end of the three-week pilot.
- Validation of meeting best practices as recommendations for continued use within the organization.
- Contribution to the theory on meetings as intervention tools for driving virtual team meeting effectiveness.

1.5. The business context for enhancing Virtual Engagement

Leadership at a leading IT services organization managing a large, diverse remote global work force was interested in examining the impact of virtual engagement practices on its remote workforce. As part of a larger research study on examining the role of remote working on employee wellbeing, the leadership identified virtual engagement practices, in particular, related to communication and meetings as a key focus area for change, to help employees achieve business and work goals of better team level and client interactions, timely delivery of work while helping with better daily work-life integration.

From the employees' perspective, the experience of engagement underwent profound changes during the pandemic. These changes include abrupt shifts to remote work entailing working in an environment where the lines between work and life have blurred. Almost overnight, the IT industry saw heroic stories of employees using personal transportation arrangements to bring office infrastructure home and give it a dedicated space to the extent possible in their home. In parallel, work had to be balanced between constant attention to caregiving for the health and wellbeing of other family members, school for children, and meeting other conflicting, and often overwhelming personal and professional demands. To support the extended ecosystem of family, the concept of interruptions took on new meaning and work had to be managed along with other parallel, often conflicting demands on the user's time. Therefore, enhancing virtual engagement of remote workers required focus, deep connect and clear communication of expectations between employer and employee which needed to be balanced with accommodation for flexibility from every stakeholder.

In line with the above business challenges, we set out to examine the following research questions for the study:

- How can virtual engagement be improved by focusing on meeting effectiveness?
- What is the extent of usage of effective meeting best practices in virtual teams?
- What are the best practices in managing meetings effectively?
- How can the Agile methodology for project management be used to effectively deliver

behavioral interventions for enhancing meeting effectiveness?

1.6. An overview of the Agile approach

In the context of a rapidly evolving pandemic and its concurrent impact on the nature and outcomes of work today, there is an urgent need for organizations to adopt approaches to managing and sustaining behavioral change that would be timely and closely aligned to the evolving complexity of the business environment. Accordingly, we applied the Agile project management approach that focuses on strategies such as goal and outcome clarity, continuous assessment, and feedback (Fernandez and Fernandez, 2008). First introduced in software development to expedite software projects, the Agile approach has now found many applications in other projects as well. At the core of the Agile methodology are its principles: customer satisfaction through early and continuous delivery; welcoming changing requirements across the development process; delivering work frequently with a preference for a shorter timescale; continuous collaboration among different organizational stakeholders; individual motivation, interpersonal trust, measurable delivery of project success, sustainable development, continuous attention, simplicity and continuous feedback (*Principles behind the Agile Manifesto*). Key Agile project management practices include: thinking in small incremental deliverables, getting customers to have some skin in the game, never have breakage and develop processes around fluid requirements (Fernandez and Fernandez, 2008). Agile approaches have been shown to have a significant impact on project success indicators such as efficiency and stakeholder satisfaction (Serrador and Pinto, 2015). Given how the Agile methodology and approach allowed for a focus on the achievement of a clear goal and outcome with feedback incorporated into the process, we chose it as a guiding methodology to help us design and implement the intervention for enhancing virtual meeting engagement. Often, such initiatives for behavior change are ineffective given lack of adequate goal and outcome clarity, monitoring mechanisms and a focus on continuous improvement during the process of deployment. These challenges are well addressed by the Agile approach and thus it was deemed appropriate for this study.

2. Intervention Design

Based on the review of research presented above, we developed a user manual of evidence-based meeting best practices incorporating best practices around conducting a meeting (Rubinger *et al.*, 2020). The manual included a brief introduction to the intervention along with a privacy and consent statement to establish trust with the participants. While the user manual worked as an instruction guide for the participants to go about the study, a variety of best practices were also listed around scheduling a meeting, time and duration of the meeting, type of meeting goals (e.g. project updates, brainstorming sessions, etc.), meeting duration, number of meeting participants, agenda setting along with pre-designed templates for easy use, and mode of meeting. The manual also included instructions for conducting a meeting with opening and closing notes, which emphasized on clear communication to improve the quality of in-meeting interactions and help participants articulate better. It also had templates for noting down meeting minutes and guide to share documents if any.

Each team was given a team ID along with each participant having a unique identification code to monitor the progress of virtual engagement over the course of the intervention. Microsoft Teams was the meeting and collaboration platform used by the participants and this was the

context for the intervention pilot as well.

2.1. Intervention Manual

The intervention manual was divided into two sections namely pre meeting and during meeting practices.

The pre-meeting practices section included meeting duration, type, agenda, number of participants and mode of meeting. This section focused on the preparedness of an individual for any given meeting and the information to be provided to all the participants beforehand to be prepared (Cohen et al., 2011). Templates and detailed steps to set agenda were given as a measure to save time.

The section on during-meeting practices included the various practices that make a meeting efficient, end to end. It included ways to start the meeting with an opening note to set the tone of the meeting right, how to capture minutes of the meeting along with a template. Techniques of audio recording and importance of taking consent were also defined. Drafting a closing note, instructions on creating and sharing the minutes of the meeting along with next steps was also included. Thus, the user manual included instructions on meeting structure, mode, schedule, goals, host and invitee related instructions, conducting and closing meetings. This intervention was designed and implemented during the COVID-19 pandemic and as such most of the organizational teams were working virtually. Thus, the instructions given in the instruction manual were well aligned to virtual meetings.

3. Methodology

Prior to the intervention pilot, a baseline survey was administered to all participants to measure their current meeting practices incorporating aspects like meeting duration, meeting size in terms of number of participants, etc. Once the baseline survey data collection was completed, the pilot was initiated, and participants filled in daily meeting feedback surveys at the end of each meeting they participated in during the course of their workday. Each team set up their respective project objectives for a three-week Agile sprint exercise. Every team identified the number of meetings that they would like to conduct to achieve the project objective. At the end of each meeting, as mentioned earlier, a short meeting feedback survey was administered to receive the immediate feedback from each participant. At the end of each week, the team lead anchored a retrospective session to discuss the work in progress each week, identify areas of improvement and ideate on how they could better apply the intervention manual to their project for the upcoming week. After the three-week sprint, the closing survey was administered to the participants.

The study followed an Agile approach, wherein weekly sprint planning and retrospective calls were conducted to facilitate a discussion on the impediments observed in the conduct of meetings in that sprint. The Agile coach guided the team and encouraged creative brainstorming to arrive at alternative solutions to address these impediments.

The scrum masters worked closely with each of the project teams to articulate the definition of done. This was evolved from the scope of work that was outlined for the three-week period. Care was taken to choose the team in such a manner that all the expertise needed for the three-week assignment was part of the development team itself. Scrum masters ensured that the meeting survey was filled in a timely manner after each meeting. Figure 1 presents an overview

of the Agile approach used in this study.

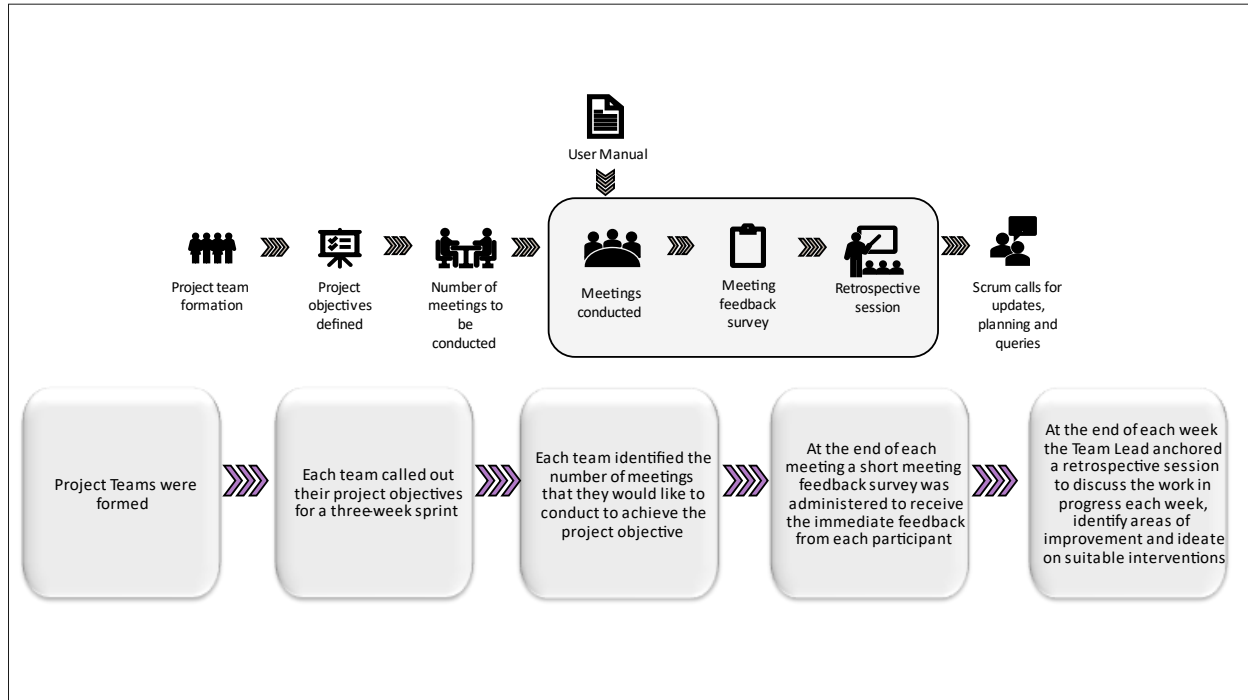


Figure 1. Approach used to carry out the study

Seven teams participated in this intervention pilot. All the teams although being from IT services had different roles, certain team had customer facing roles and catered to developing solutions for sectors like healthcare, banking and finance, while some were focused on building technology-based services for running business both internal and external to the company. Teams from sales and marketing, and IT research were also a part of the intervention pilot. Given that participants primarily worked in IT services, they were well versed with meeting collaboration platforms such as Microsoft Teams. Specific project teams were chosen from production support, development, research, Agile implementation, and maintenance. The intervention pilot was conducted between 11th February 2021 till 3rd March 2021 for a period of three weeks. The baseline survey prior to the experiment ran from 11th to 15th February and 188 individual responses were received. The daily meeting effectiveness survey was launched from 15th February till 4th March 2021 and received a total of 1207 responses. The closing survey was administered at the end of the intervention experiment from 4th to 5th March 2021. The sample comprised of 66% men and 34% women, with a majority of the sample (76%) having work experience in the 0-5 years of age.

3.1. Measures Used

3.1.1. Baseline Survey: The measures included in the pre intervention baseline survey included participant and team demographics such as gender, job role, joining date and team span. Meeting metrics such as the number of meetings in a week, busiest block of time in a typical workday, busiest days of the week, average number of hours spent in meetings in a day, number of planned vs unplanned meetings, meeting mode, attention span, meeting structure, meeting best practices,

challenges and expectations from meetings were also collected. The overall contribution of the meeting to their work was also captured in the survey as the participants rated their virtual interaction based on the effectiveness.

3.1.2. Daily Meeting Effectiveness Survey: The daily meeting feedback survey captured the duration and the effectiveness of the meeting conducted. Participants rated the meeting on a 7-point effectiveness scale and provided the rationale for their rating. Perceived meeting participation was also measured in the survey on a 7-point Likert scale from ‘extremely low participation’ to ‘extremely high participation’. To further corroborate meeting effectiveness, the daily survey also asked participants to report their rationale for their effectiveness rating, as well as the duration of time they spent in each meeting. Taken together, the meeting effectiveness was measured for each meeting.

3.1.3. Closing Survey: Closing survey included items similar to the baseline survey on meeting metrics, workday routine, and effectiveness with additional open-ended questions for any other effective meeting management practices respondents used and any feedback they wished to share on the overall intervention.

4. Results

Table 1 shows the results of the baseline survey. We note that 26.6% respondents rated their current meeting practices to be very effective whereas 6.92% respondents rated their meeting practices to be less or not effective.

Response Category	Effectiveness Percentage
Very Effective	26.6%
Mostly Effective	53.72%
Mildly Effective	12.77%
Neither effective nor Ineffective	4.26%
Mildly Ineffective	1.6%
Mostly Ineffective	0.53%
Very Ineffective	0.53%

Table 1. Results of baseline survey

Table 2 shows us participant responses on meeting effectiveness at the end of three weeks. 50% respondents rated meeting practices to be highly effective while none of the participants rated the meeting practices as ineffective.

Response Category	Effectiveness percentage
Very effective	50%
Mostly effective	40.32%
Mildly effective	9.68%
Neither effective nor ineffective	0%
Mildly ineffective	0%
Mostly ineffective	0%
Very ineffective	0%

Table 2. Meeting effectiveness- end of three weeks

Thus, results indicate an overall improvement in meeting effectiveness over the three-week period of the study. We next looked at teamwise differences in meeting effectiveness. We note in Figure 2, improvement between the two time periods of week 1 and week 3 for all the teams.

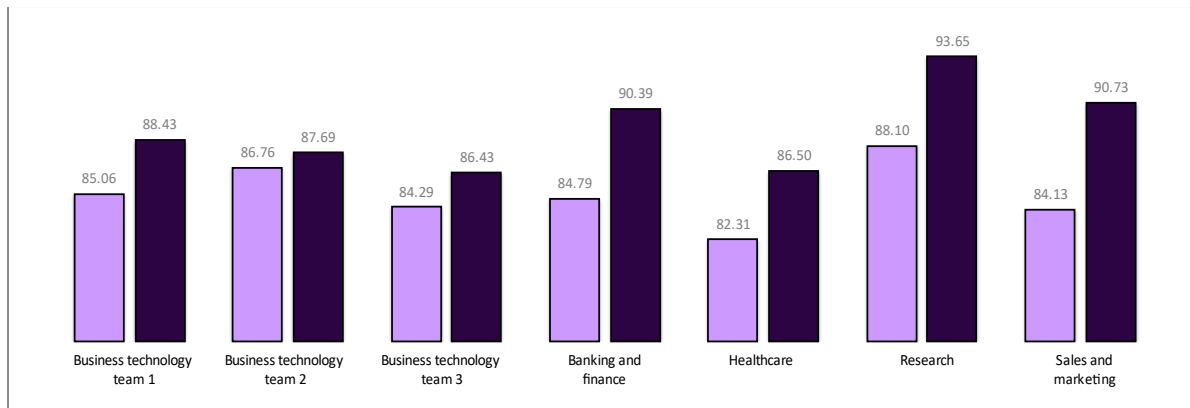


Figure 2. Meeting effectiveness improvement over three weeks

We analyzed week-wise trends on meeting effectiveness and participation based on results of the daily meeting feedback survey. We found a slight reduction in the scores on effectiveness in participation at week 2 before they improved again at week 3. This is presented in Figure 3. The reduction was on account of some of the participants being on leave, work schedules spanning time zones or other project deliverables.

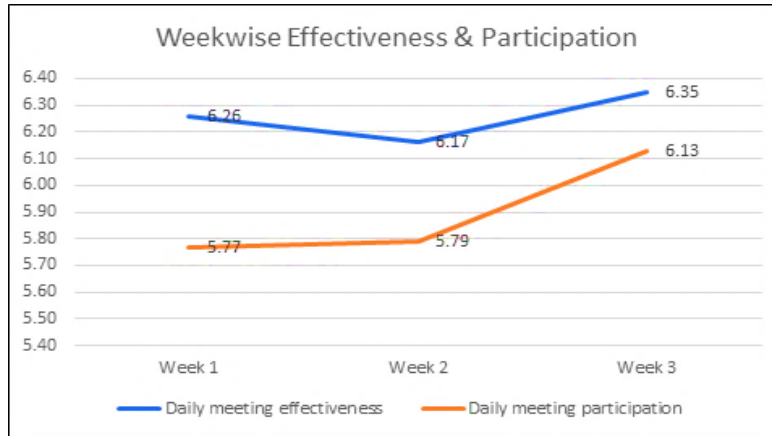


Figure 3. Week-wise meeting effectiveness trend

Next, from the baseline survey, we plotted the trends associated with attention span and effectiveness for the 7 participating teams. Figure 4 presents the analysis. The trend lines for all the 7 teams approximately converge at the 30–45-minute mark with a maximum spillover of 5 minutes, before the effectiveness scores fall further or rise again.

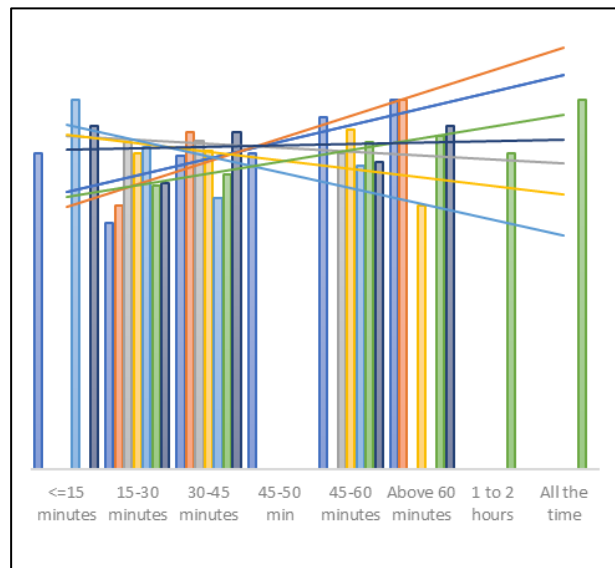


Figure 4. Attention span and meeting effectiveness trend

In addition to this we found that the average number of hours spent by the participant in meetings as reported in the baseline survey was 2.62. The trends among the teams related to meeting duration and effectiveness is shown in Figure 5.

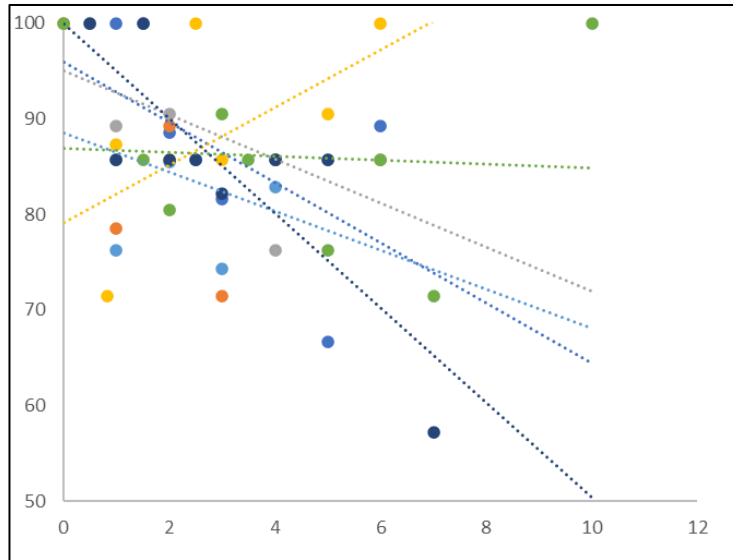


Figure 5. Meeting duration and effectiveness trend

Further we analyzed the differences in meeting duration by effectiveness across the three weeks. The results are presented in Figure 6.

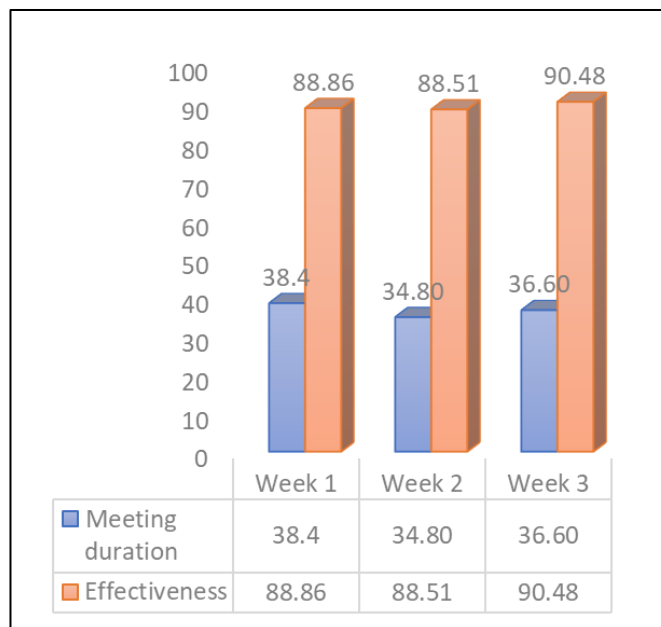


Figure 6. Meeting duration and effectiveness across three weeks

Taken together, the insights from figures 4, 5 and 6 suggest that the baseline survey showed an average of 2 hours per day in meetings for it to be effective, with attention spans falling at the 30–45-minute mark. This result was further supported by meeting best practices recommendations to not have meetings exceeding 45 minutes. Overall, it was noted that at the end of the three-week exercise, average meeting duration decreased to 36.6 minutes, with the effectiveness percentage at 90%. This suggests the need for a focus on shortening meeting duration without risking lower effectiveness in the process.

As mentioned above, participants reported an attention span of 30-45 minutes and the optimal duration for an effective meeting was identified to be 36-45 minutes. When asked for the best practices that contributed the most to their meeting, practices like keeping discussion points handy, appreciating team efforts, setting, and sharing team agenda upfront, having common meeting channels and regular meetings same time and day, were rated the highest. During the pilot, participants also suggested new practices that contributed to the effectiveness of their meetings.

As part of the closing survey, participants reported that they would prefer about 3 meetings a day for effective virtual communication, and yet they would prefer 2 hours a day for better focus at work. This finding indicates that while different meeting durations are associated with different objectives such as virtual communication, work discussions etc., the overall meeting duration that would be most effective for virtual teams would be 36 minutes approximately.

The qualitative inputs received during the study also helped us identify other meeting related best practices that the participants were able to share with the team as part of their daily scheduled scrum calls. These inputs related to practices that the participants found very helpful, such as, agenda setting, data points for meetings shared a priori via mail as a presentation or excel, meetings held on the same day, same time. Meetings size not exceeding more than 10 members, and having a common channel for documenting work status, were also suggested. Other practices included the use of customized Kanban boards for reporting, encouraging participation from all members, using the Blue Hat approach, shorter duration of meetings, having live virtual whiteboards during discussion, giving team members responsibility for the conduct of meetings, etc.

Overall, this exercise led to greater understanding of the expectations from virtual engagement. Firstly, the intervention designed based on evidence in the field of meeting science helped create a measurable behavior change module for enhancing meeting effectiveness, and in turn virtual engagement. The teams using the intervention module consistently for the entire duration of the study reported benefits in the form of their managing their schedules better, better overall planning and outcomes for their workday, greater participation within each meeting by the team and higher effectiveness. Second, the Agile approach involved the discipline of measuring the impact of each of the parameters made teams involved aware of the operating environment, not merely in abstract terms but formally. Teams understood which meeting practices created greater impact for their team productivity and effectiveness. While leaders used this to drive a more cohesive engagement within the teams, the team members themselves felt that the organization cared about their engagement levels, which was a significant validation of this approach.

5. Discussion

The present study is aimed at exploring the prevalence and use of meeting best practices and their impact on meeting effectiveness and participation as part of an intervention exercise conducted in a global IT services organization. As part of a three-week exercise, seven project teams of a large organization participated in the intervention aimed at enhancing their virtual meeting effectiveness, engagement, and participation. The intervention, created in the form of a manual of meeting best practices, together with templates for scheduling meetings was very well received and consistently used across the three-week period of the study. By the end of the three-week exercise the drivers of effective virtual communication were identified for their role in

improving meeting effectiveness. Shorter duration of meeting, sharing meeting agenda before the meeting, smaller size of meetings, were some of the best practices that were indicated as being very useful. Due to issues with connectivity and bandwidth, audio was the more preferred mode of communication in meetings. This finding runs counter to some of the recommended best practices around the use of video mode in meetings for greater effectiveness. It was observed that by following the recommended best practices and not having meeting spillover for more than 5 minutes, saved the participants time to work. Informal connect was appreciated amongst the participants while planned structured meeting were more favored than unplanned formal meetings. In addition, the Agile approach helped the teams work on short term sprint goals. By defining project objectives and creating scrum teams the intervention exercise covered a wide range of projects with their milestones clearly defined. This helped validate the robustness of the methodology in different business contexts. The findings of this study further augment the current state of the art with regard to virtual engagement and in particular meeting best practices by providing real world validation and support for key meeting attributes and their role in meeting effectiveness.

6. Conclusion

This paper set out to examine the various meeting related drivers of virtual engagement in the context of one of the world's largest IT organizations. Drawing from research and practice in organizational change management, virtual team engagement and meeting science, we designed and implemented a three-week intervention exercise with seven teams working in a challenging, dynamic and complex business environment. We were able to demonstrate how evidence driven behavioral interventions delivered using the Agile methodology can be used to guide the process of behavior change and enhance virtual teams' meeting effectiveness. For future rollouts of this intervention, we plan to target other types of projects such as development and maintenance projects and focus more closely on hybrid work wherein employees spend some portion of time at the office and work from home the rest of the time. The nature of collaboration in hybrid work is also an area we plan to explore more closely in the near future. We also plan to extend the learnings from this pilot to teams where there could be work arrangements that are different within the same team, for example, there could be a sub-team that works remotely while the other reports to work at the office location. These differences in working models require in depth attention in terms of interventions contextualized to their business context, engagement models, meeting practices and work as well as other individual and team level outcomes.

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