Participation and Effectiveness in Hybrid Meetings

Willem Standaert, HEC Liège, University of Liège, willem.standaert@uliege.be
Joseph A. Allen, University of Utah Health, joseph.a.allen@utah.edu

Introduction

During the COVID-19 pandemic, workers were forced to meet virtually instead of face-to-face (Reed and Allen 2021). Having experienced the advantages of virtual meetings (e.g., time and carbon emission savings), workers are likely to keep using virtual meetings at a regularity higher than before the pandemic (Gartner 2020). Nevertheless, researchers have highlighted that face-to-face meetings are still preferred for some meeting objectives, such as those related to building relationships and innovation (Bloom et al. 2015; Standaert et al. 2022). As we emerge out of the pandemic and related work-from-home measures, hybrid meetings – combining physical and virtual participation (Neumayr et al. 2022) – are expected to be the “new normal” (Frisch and Greene 2021). The advent of hybrid meetings further complicates the meeting mode choice, which was hitherto primarily a choice between face-to-face and virtual (Standaert et al. 2022). Moreover, scholars have warned that a hybrid meeting is substantially different from both face-to-face and virtual meetings (Schwartzman 2015), therefore the non-trivial question arises: when and how can hybrid meetings provide the best or the worst of both worlds?

While different fields have considered hybrid meetings (Neumayr et al. 2022; Sox et al. 2017), academic work on the topic is still nascent. An important notion in this area is that of sub-groups and imbalance in hybrid situations, which may impair communication and trust development (Polzer et al. 2006). Further, these fracturing meeting environments may lead to the formation of local coalitions (Williams 1975), suggesting people agree with each other based on physical presence rather than more rational factors. In recent qualitative work, Saatçi et al. (2020) analyzed technological breakdown and turn-taking episodes in hybrid meetings and concluded that (p. 790) “to have more inclusive, democratic, and participatory hybrid meetings, there is a strong need for design solutions that are flexibly configurable according to the specific needs, goals, and dynamics of each meeting.”

Notably, in hybrid meetings, there is a risk of the remote participants to feel as second-class citizens in the meeting relative to the physically present attendees (Reed and Allen 2022). The higher difficulty to participate in hybrid meetings for remote participants, may also be associated with lower levels of effectiveness (Allen et al. 2015). Hence, we aim to address the research question: How are participation and effectiveness perceived by physically present and remote participants in hybrid meetings?

Research Method

To systematically examine the phenomenon of interest, we have developed a questionnaire in which the respondent is asked to report on a specific, recent hybrid meeting. Referring to a recent meeting is a common practice in meeting science research (Standaert et al. 2021). For this specific meeting, the questionnaire includes measures for participation
and effectiveness, adapted from prior research (Rogelberg et al. 2006; Siegel and Ruh 1973; Yoerger et al. 2015).

The online questionnaire was shared with all members of a business unit (i.e., 250 employees) within a global company, headquartered in Europe, which designs, manufactures, and sells visualization technology. To incentivize participation (Markus 1994), the email invitation was sent by the vice-president leading the business unit and a feedback report was promised. Following research conventions for minimizing social desirability bias, the email invitation explained that data would be treated confidentially and anonymously and presented on an aggregated basis only (Podsakoff et al. 2003). The invitation e-mail was sent on March 9, 2021 and the data collection took about one month. During that time, the employees could choose to work from home or from the company offices. Microsoft Teams was the default virtual meeting tool and the employees had access to rooms equipped with video-conferencing hardware (camera, microphone, speaker, screen). In addition, the employees made use of wireless conferencing equipment (hardware and software) that enabled meeting participants to easily connect video-conferencing software (on a laptop) with video-conferencing hardware (in the room).

We received 170 responses, a response rate of 68%. After checking the data, we removed 34 responses because of incompleteness or suspicious repetition, so our final data set included 136 useful responses. The majority of respondents were located in Europe (72%) then Asia (21%) and finally North-America (7%). In terms of functional areas, the following were represented in decreasing order of numbers: R&D, Sales, Services, and Marketing. The average age was 43 years and in terms of gender, 75% of respondents identified as male, 21% as female, and 4% selected “Other or prefer not to disclose.” These descriptive statistics are representative for the business unit.

Findings

We report preliminary findings related to participation and effectiveness in hybrid meetings. In addition to overall perceptions, we compare the responses of physically present (27% of the sample) with remotely attending meeting participants (73% of the sample). These mean participation scores are presented in Table 1.

<table>
<thead>
<tr>
<th>Meeting Participation</th>
<th>Mean (N = 121)</th>
<th>Std. Deviation</th>
<th>Physically present (N = 34)</th>
<th>Remotely attending (N = 87)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I had a high degree of influence in the decisions</td>
<td>3.50</td>
<td>0.93</td>
<td>3.68</td>
<td>3.43</td>
</tr>
<tr>
<td>I often participated in decisions regarding my job</td>
<td>3.47</td>
<td>1.03</td>
<td>3.50</td>
<td>3.46</td>
</tr>
<tr>
<td>I had a high degree of influence in the decisions affecting me</td>
<td>3.41</td>
<td>1.03</td>
<td>3.74*</td>
<td>3.29*</td>
</tr>
</tbody>
</table>

Table 1. Mean Participation, for Physically Present and Remote Participants (* p<0.05)

We observe good levels of perceived meeting participation overall (above 3 on a 1-5 scale), suggesting participants of hybrid meetings were satisfied with their level of influence in the meeting. However, differences were found between the two groups of respondents (physically present versus remotely attending), with remote participants
reporting lower numbers, of which one difference is statistically significant (Independent Samples T-Test): “I had a high degree of influence in the decision affecting me.”

In Table 2 below, mean effectiveness scores are presented for the whole sample, in addition to the mean scores for physically present and remotely joining participants.

<table>
<thead>
<tr>
<th>How do you rate the effectiveness of this meeting for:</th>
<th>Mean (N = 121)</th>
<th>Std. Deviation</th>
<th>Physically present (N = 34)</th>
<th>Remotely attending (N = 87)</th>
</tr>
</thead>
<tbody>
<tr>
<td>achieving your own work goals</td>
<td>3.70</td>
<td>0.86</td>
<td>3.97*</td>
<td>3.60*</td>
</tr>
<tr>
<td>achieving colleagues' work goals</td>
<td>3.70</td>
<td>0.87</td>
<td>3.88</td>
<td>3.63</td>
</tr>
<tr>
<td>providing you with an opportunity to acquire useful information</td>
<td>3.84</td>
<td>0.85</td>
<td>3.85</td>
<td>3.84</td>
</tr>
<tr>
<td>providing you with an opportunity to meet, socialize, or network with people</td>
<td>3.30</td>
<td>1.16</td>
<td>3.35</td>
<td>3.28</td>
</tr>
</tbody>
</table>

Table 2. Mean Effectiveness, for Physically Present and Remote Participants (* p<0.05)

We observe good levels of perceived meeting effectiveness overall (above 3 on a 1-5 scale), suggesting participants of hybrid meetings are satisfied with the effectiveness of the meeting. Moreover, a statistically significant difference (Independent Samples T-Test) is observed between the two groups (physically present versus remotely attending), namely for the item achieving their own work goals (rated lower by remote attendees).

We also observe that the mean effectiveness score for “providing you with an opportunity to acquire useful information” (3.84) is much higher than for “providing you with an opportunity to meet, socialize, or network with people” (3.30) and a Paired-Sample T-Test showed this difference is statistically significant (p < 0.01).

As a final step, we have analyzed the Pearson correlation between participation and effectiveness, overall and for the two groups in our sample (physically present versus remotely attending), as presented in Table 3. For these measures, the averages are taken of the respectively three (for participation) and four (for effectiveness) underlying items.

<table>
<thead>
<tr>
<th>Overall (N = 121)</th>
<th>Physically present (N = 34)</th>
<th>Remotely attending (N = 87)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.21*</td>
<td>-0.11</td>
<td>0.34**</td>
</tr>
</tbody>
</table>

Table 3. Correlations (* p<0.05; ** p < 0.01)

We observe that there is an overall significant correlation, yet that the correlation differs strongly across the two groups: there is a strong positive and significant correlation for remotely attending participants, while the correlation is negative, but non-significant, for physically present participants.

**Discussion**

An important observation is that hybrid meetings appear to be useful in many ways, as expressed in both overall participation and effectiveness levels, yet the rating by remote participants is found to be lower. Our findings contribute to the literature on hybrid meetings by providing empirical evidence from real-life hybrid meetings for the often-
made claims that it is harder for remote attendees to participate and obtain satisfactory meeting outcomes (Frisch and Greene 2021; Saatçi et al. 2020). Our findings of lower perceived levels of participation and effectiveness for remote participants points to a need to improve the social identity of remote group members who participate in hybrid meetings (Blanchard et al. 2022).

Our key takeaway for practitioners is that while others have recommended to avoid hybrid meetings and develop an alternating pattern of face-to-face and virtual meetings, we argue that leaders and meeting attendees must consider how they can ensure remote attendees participate equally with physically present individuals (Reed and Allen 2022). First, it requires investing in appropriate equipment (e.g., facilitating large video presence of remote participants with directional audio). Second, it requires adjusting meeting practices (Saatçi et al. 2019). It seems obvious that the organizer needs to frequently call upon and involve the remote participants. Further novel best practices in terms of hybrid meeting interaction are likely to emerge. By better understanding these dynamics, managers can make sure to combine the best of face-to-face and virtual meetings, not the worst.

Future research is needed to validate our observations, especially a comparison of hybrid meetings with face-to-face and virtual meetings, is high on our agenda. We also plan further research on the (im)balance of meeting compositions, referring to the number of people physically co-located versus those remotely attending. We observed in our data that there were more on average remote attendees than physically attending participants, but our findings could be different if the balance was different. Interesting questions relate to whether there is an ideal composition in terms of participation and effectiveness and whether there is an inflection point at which meeting purely virtual might be more appropriate.

Also, special attention needs to be paid towards inclusivity of groups that have been found to be often excluded from meeting participation. While hybrid meetings could be organized to include people that would otherwise not have a chance to participate (e.g., women working from home), the unequal access to communication capabilities is likely to lead to further inequality in speaking time. Indeed, prior research found that speaking up in meetings was more difficult for women (Standaert and Thunus 2022).

References


