

## EFFECTS OF MEETING LEADER TRAINING ON MEETING ATTENDEES

### Abstract

This study assessed the effectiveness of training leaders in behaviors that satisfy meeting attendees' psychological needs for autonomy, competence, and relatedness. Three managers who regularly lead meetings with their work-groups participated in the study. The study used a research design of multiple baselines across groups and began with baselines ranging over three to five meetings. Group leaders then received a session of behavioral skills training with a role-play component, followed by post-training assessment over three to five meetings. The final assessment occurred one month later. Leaders reported the number of recommended leader behaviors they used prior to training and at subsequent meetings. Group members anonymously completed ratings of (1) the extent of their psychological need satisfaction, (2) their satisfaction with each meeting, and (3) how productive each meeting was. Meeting leaders showed significantly more use of the recommended behaviors after training than before training. Member ratings indicated a significant increase in need satisfaction, satisfaction with meetings, and meeting productivity after the training of their leader. Significant positive effects remained at a one-month follow-up. The findings show that training leaders in needs-focused behaviors to use in running meetings can be used to satisfy attendee-needs and to improve meeting satisfaction and productivity.

### Introduction

Meetings are platforms for social interaction between colleagues at work, with a main purpose of discussion and decision making to achieve organizational goals (Allen, Beck, Scott, & Rogelberg, 2014; Olien, Rogelberg, Lehmann-Willenbrock, & Allen, 2015). Workplace meetings are processes that function as microcosms of the group (O'Rourke & Duffy, 2012; Schwartzman, 1989). For example, when employees gather to discuss work-related matters, their interactions and the decisions they make are representative of a culture that is unique to their organization (Islam & Zyphur, 2009).

Organizational meetings have many potential benefits (Tracy & Dimock, 2004). For example, meetings enable members of work-groups to participate in healthy discussions and teamwork (Yoerger, Crowe, & Allen, 2015). Previous research has shown that when employees are satisfied with their meetings, they find a sense of purpose through their work (Rogelberg et al., 2010) and become motivated to engage in work-related activities due to personal interest (Baard, Deci, & Ryan, 2004) that, in turn, limits the risk of employee turnover (Mroz & Allen, 2015).

In contrast, poor-quality meetings may negatively affect organizational groups. Last-minute meetings,

in particular, are seen as “interruptions” because they delay the completion of pre-scheduled tasks and activities (Jett & George, 2003; Leach, Rogelberg, Warr, & Burnfield, 2009). Anecdotal evidence provided by regular meeting attendees implies that unproductive meetings are believed to be a “waste of time,” serving only as distractions from more important work (Rogelberg, Shanock, & Scott, 2012). It seems, then, that poor-quality meetings create frustration within work groups (Rogelberg, Scott, & Kello, 2007) and diminish attendees’ sense of achievement.

Research findings suggest that one way to enhance the quality of meetings is for meeting leaders to satisfy the psychological needs of meeting attendees. In an analogue study, Schuleigh, Malouff, Schutte, and Loi (2019) randomly assigned 158 employees to view either an experimental vignette of a meeting leader who used needs-supportive behaviors to run a marketing meeting, or a control vignette that did not include any of these attendee-needs-based leader behaviors. Schuleigh et al.’s findings showed a significant increase in attendees’ level of meeting productivity and satisfaction with meetings, suggesting a connection between meeting leader behavior and positive meeting outcomes.

Applying Needs-Based Theory to Meeting Leadership. Self-determination theory posits that humans have three basic psychological needs that, when satisfied, boost work performance and psychological wellbeing (Deci & Ryan, 2000). Individuals need to have a sense of volitional control over future actions and events in their lives. Accompanying this need for autonomy is the need to accomplish goals and feel competent in doing so (Deci, Olafsen, & Ryan, 2017). This need for competence links to the need to feel heard and understood by trusted peers, or the need to experience relatedness (Deci & Ryan, 2000).

Individuals experience the three basic needs in different realms of life, including the workplace

(Gagné & Deci, 2005). Studies have shown that need satisfaction can lift one’s mood and increase positive thinking and behavior (Chun & Choi, 2014; Schutte & Malouff, 2018). When employees’ basic psychological needs are satisfied at work, they begin to see the importance of their efforts and feel empowered to contribute more (Baard et al., 2004) – including at meetings. Prior research on organizational meetings by Schuleigh et al. (2019) found positive associations between the satisfaction of attendees’ basic psychological needs and attendees’ subsequent satisfaction with meetings and level of meeting productivity.

Research Findings on Training Meeting Leaders. Organizational leaders devote a significant number of work hours to meetings, with managers spending up to three-quarters of the work-week either scheduling, running, or attending these workplace gatherings (Luong & Rogelberg, 2005). Many experts recommend that leaders of organizations run more efficient and productive meetings (Baran, Shanock, Rogelberg, & Scott, 2012; Geimer et al., 2015). In a small-N study in Australia, Douglass, Malouff, and Rangan (2015) provided mid-level managers from various organizations with brief training and a checklist of recommended behaviors. They asked the leaders to use the behaviors at meetings. Items from the checklist focused on meeting leader behaviors that tend to satisfy the needs of meeting attendees. The study showed that the training produced significant positive results on attendee ratings of meeting satisfaction and productivity. Although Douglass and colleagues measured leaders’ use of target behaviors and attendees’ subsequent satisfaction with the relevant meeting and level of meeting productivity, the researchers did not measure the extent to which attendees’ basic psychological needs were met, nor the possible long-term effects of training leaders in running meetings.

Current Research. The objectives of the present research study were to assess the long term effects

of role-play-based training on (1) meeting leaders' use of key behavioral skills during organizational meetings, (2) the extent of attendees' psychological need satisfaction during meetings, and (3) attendee perceptions of meeting satisfaction and meeting productivity. We hypothesized that:

Hypothesis 1. Meeting leaders would show greater use of target behaviors at meetings held post-training than pre-training.

Hypothesis 2. At post-training, attendees would rate their psychological need satisfaction, meeting satisfaction, and meeting productivity higher than at pre-training.

Hypothesis 3. All improvements from baseline would endure for at least one month after the post-training assessment.

## Method

**Research Design.** Although our hypotheses were primarily based on the research findings of Schuleigh et al. (2019), the current study differs in that it involved a small-N method for studying actual meetings held by managers of a for-profit corporation. We used a small-N experimental design to test for the specific effects – both immediate and long term – of a brief role-play based training on company meetings held by managers of three separate work-groups. This experimental design, in which meeting leaders were randomly assigned to receive the training session at varied time intervals, allowed us to assume that any changes in meeting leader behavior and attendee ratings of meeting quality and needs satisfaction were likely due to the training, rather than by chance (Miltenberger, 2016). We randomly assigned leaders to three, four, or five baseline assessments in order to be able to use a randomization test, which increases the power to detect a significant difference in outcomes before and after an intervention (see Bulté & Onghena, 2009). Reaching causal conclusions in a field study with regard to real leaders and real groups can help contribute to the ecological validity

and generalizability of results.

**Participants.** Three work-groups from a for-profit corporation located in the United Kingdom took part in the study. Participation was restricted to employees aged 18 years or over who regularly led or attended organizational meetings at work. Sixteen meeting attendees comprised the study sample, along with three managers, two of whom were female. Meeting leaders (leaders A, B, and C) were middle and upper level managers in their mid-20s who had worked for an average of two and a half years at the company. The number of meeting attendees per group varied across leader A (n=9), leader B (n=6), and leader C (n=8). Each work-group received £500 for completing the study.

### Measures.

**Leader Behavior Observation Form – Condensed Version** (Schuleigh et al., 2019). This checklist measures the use of attendee needs-supportive behaviors by leaders during meetings. The checklist has evidence of construct validity and good internal reliability ( $\alpha=.81$ ; Schuleigh et al., 2019). Table 1 shows the leader behaviors. In the current study, leaders used the checklist to report the number of behaviors they used during their final baseline meeting and at meetings after training. Leaders indicated “yes” for behaviors they showed at the meeting. Items recorded as present received a score of 1; other items received a score of 0. Possible scale scores ranged from 0 to 18, with higher scores indicating a greater use of target behaviors.

**Basic Psychological Needs at Work Scale – Adapted Version** (Schuleigh et al., 2019). The Needs Scale comprises three subscales that measure the extent to which an individual's needs for autonomy, competence, and relatedness are satisfied at work (Brien et al., 2012). Schuleigh et al. (2019) modified the original items of Brien

et al. to suit the context of organizational meetings. A sample item from the modified scale is, "I felt understood by other members of the meeting." Scores can range from 1 to 6, with higher scores indicating a greater degree of satisfaction

for attendees' basic psychological needs at meetings. The modified scale has evidence of validity and internal reliability ( $\alpha=.94$ ; Schuleigh et al., 2019), and showed good internal consistency ( $\alpha=.94$ ) for the current sample of meeting attendees (N=16).

Table 1

*Meeting Leader Behaviors Assessed and the Attendee Needs each Behavior May Help Satisfy*

Meeting leader behavior	Attendee needs addressed
Distribute agenda in advance of meeting	Enables attendees to prepare in advance, thereby boosting their sense of competence.
Arrive before start of meeting	Builds rapport with members of the meeting by helping attendees feel valued, thereby increasing relatedness.
Start on time	Builds trust and confidence within members of the work-group.
Greet members individually or as a group	Strengthens the bond within the group and increases relatedness.
Follow agenda	Helps attendees show competence.
Speak succinctly	Helps attendees feel heard and understood, strengthening relatedness.
Move meeting along	Supports attendees in achieving the meeting aims and showing group competence.
Encourage participation	Provides attendees with a sense of control over the outcomes of the meeting and helps attendees to feel part of a trusted group – part of relatedness and autonomy.
Encourage decision making	Helps attendees to use their judgement when achieving the meeting aims, thereby raising their sense of group competence.
Compliment individual members	Boosts attendees' confidence in their own abilities and strengthens feelings of relatedness and competence.
Thank all the members for something, such as attending or helping	Gives attendees the sense that they are valued members of the team. Boosts relatedness and competence.
Paraphrase comments of members	Develops mutual understanding and closeness within the group. Strengthens relatedness.
Ask open-ended questions	Generates team rapport by engaging attendees. Provides attendees with a sense of autonomy via their freedom to make decisions.
Interact respectfully with members	Encourages attendees to engage freely in the meeting discussion. Enhances relatedness.
Smile	Strengthens relatedness.
Say or do something interesting or entertaining	Creates a friendly atmosphere and boosts relatedness.
Say something positive about some aspect of the future of the organization	Helps attendees feel successful and productive. Strengthens feelings of competence and relatedness.

Organizational Meeting Satisfaction Scale (Malouff et al., 2012). The Meeting Satisfaction Scale, completed by attendees, assesses satisfaction with the relevant meeting. A sample item is, "In most ways the meeting was ideal." Group scores were calculated as mean scores across attendee ratings of the items. Scores can range from 1 to 7, with higher scores indicating greater satisfaction with the meeting. The scale has good evidence of construct validity and reliability, with Cronbach's alpha scores ranging from .83 to .96 in prior studies (Douglass et al., 2015; Malouff et al., 2012; Schuleigh et al., 2019). In the current sample (N=16), internal consistency was good,  $\alpha=.89$ .

Organizational Meeting Productivity Scale (Douglass et al., 2015). The Productivity Scale assesses meeting attendees' evaluation of how productive a meeting was. A sample item is, "The organization will benefit because of what happened in the meeting." Response options had the same range as the Meeting Satisfaction Scale, and group scores were calculated in the same way. Scores can range from 1 to 7, with higher scores indicating a greater sense of group productivity during the meeting. The scale has good evidence of validity and reliability, with Cronbach's alpha scores ranging from .90 to .93 (Douglass et al., 2015; Schuleigh et al., 2019). Internal consistency was  $\alpha=.95$  for the current sample (N=16).

Role-Play Based Training Sessions. A trainer provided each meeting leader with a one-to-one training session that lasted up to an hour. Sessions began with a discussion explaining that psychological theory suggests that using certain needs-focused behaviors when running meetings may help improve meeting productivity and increase attendee satisfaction with

meetings. The trainer described the meeting behaviors and provided leaders with a written list of them. The trainer then invited leaders to adapt the methods they learned during the training to their own personal leadership styles at actual meetings in the future.

Meeting leaders read each of the scenarios prior to role-playing them with a trainer. The trainer began each session by assuming the role of the fictional meeting attendee from the first hypothetical meeting-scenario. Trainees assumed the role of meeting leader and responded to the fictional attendee's behavior or request from each scenario. When the trainee's response was needs-focused, the trainer responded with positive feedback. However, if the trainee provided an incorrect response or reaction, the roles were reversed in a second role-play so that the trainer could provide further instruction and model the correct behaviors. The roles were then reversed in a third role-play in which the trainee could rehearse the correct responses.

At the end of the training session, the trainer told the trainees that the application of needs-focused behaviors would become more natural over time and encouraged the leaders to practice these skills at future meetings. By the end of the training session, trainees demonstrated that they were able to apply all of the recommended behaviors.

We drew on previous research findings to create four meeting scenarios for the role-play component of the training sessions. In the first scenario, trainees had the chance to rehearse how to interact respectfully with an attendee named Adam who arrived late to the meeting. One possible response to Adam's behavior was to greet him individually, invite him to take a seat,

and continue the meeting in respect of the other attendees who turned up on time. The trainer also provided instructions about starting a meeting on time by arriving early to prepare the meeting room and to distribute a structured agenda before the actual meeting.

The second scenario helped trainees practice how to move a meeting along when an attendee raises a problem or query that does not relate to the agenda points or aims of the meeting. In this scenario, an anxious attendee named Anne interrupted the meeting with a problem that, in her opinion, needed a quick solution. The trainer showed the trainees that the appropriate way to react to Anne's behavior was to thank her for bringing up a problem that needed solving. The trainer recommended that matters that would normally take a long time to resolve be reserved for discussion toward the end of the meeting so that the original agenda items could be completed. The trainer also asked the leader to say something positive about an aspect of the future of the company to raise everyone's spirits and motivate of the rest of the team.

In the third scenario, trainees rehearsed how to encourage participation and decision making in response to an attendee named Jane who sat quietly without adding much to the discussion but usually had very good ideas to help solve work-related problems. Trainees were taught that one possible response to reserved behavior was to grab an attendee's attention with an interesting fact or entertaining comment, followed by an open-ended question to help the person take part in the discussion.

Finally, the fourth meeting scenario helped the trainees to rehearse how to

end their meetings on a positive note. In this scenario, an attendee named David responded to the final point on the agenda, signaling that there was nothing more to discuss. Trainees practiced ways to paraphrase David's comment and thank him for his attendance while succinctly summarizing the decisions made, or tending to any outstanding matters if there was enough time.

**Procedure.** Following ethics approval, we used a research notice to promote the study to prospective organizations, community groups, and members of the public. The announcement was displayed on various notice boards in community centers and included information about the proposed study aims and procedure in addition to researcher contact details. Potential participants indicated their interest by contacting us via email or telephone. Meeting leaders received an information sheet about the research study prior to providing informed consent. Assessment forms completed by group members were anonymous. Attendees created four-digit codes that they used in place of their names when completing measures for the study.

We used a research design of multiple baselines across groups, as described by Barlow and Hersen (1984) and Bulté and Onghena (2009). The study involved three organizational leaders and members of the groups they ran. We randomly assigned meeting leaders to have either three, four, or five baseline sessions before receiving the training session. Leader A had three baseline sessions prior to training and then five post-training sessions during which we assessed leader behavior and collected meeting ratings from attendees. Leader B had four baseline sessions and four post-training sessions. Leader C had five baseline sessions and three post-training sessions. After baseline, each leader received a single one-to-one training session with a trainer.

Meeting leaders completed the Leader Behavior Observation Form – Condensed Version (Schuleigh et al., 2019) after their final baseline session and

after each post-training session to report on their use of needs-supportive behaviors at meetings. To avoid prematurely giving the leaders tips on running meetings, we did not collect self-report data prior to the end of their baseline. Using the Basic Psychological Needs at Work Scale – Adapted Version (Schuleigh et al., 2019), attendees provided anonymous feedback for the degree of satisfaction for their basic psychological needs at meetings. In addition, groups of meeting attendees used the Organizational Meeting Satisfaction Scale (Malouff et al., 2012) to rate the extent of their satisfaction with each meeting. Finally, meeting attendees used the Organizational Meeting Productivity Scale (Douglass et al., 2015) to rate how productive they felt the meetings were. We supplied locked box files for completed forms. We collected all hardcopy materials, including leader checklists and attendee rating forms, at the end of each study phase. One month after the end of the post-training assessment, we collected follow-up data of three further meetings from each meeting leader and group.

meetings compared to baseline. This result provides support for Hypothesis 3 that meeting leaders continued to use needs-supportive behaviors at meetings that were held a month after training. Figure 1 shows the changes in leader behavior during follow up meetings.

## Results

We determined the number of needs-focused behaviors, out of 18, used by each leader at baseline and compared these results to leaders' use of the behaviors post-training. If the leader showed more of the behaviors in a meeting, we scored a 1. If not, we scored a 0. We then summed the number of 1s across leaders and applied the binomial theorem to test whether the number of 1s was greater than at chance level of 50% (Cross & Chaffin, 1982) across all post-training sessions. Exact binomial tests indicated that the training significantly increased leaders' use of needs-focused behaviors during the post-assessment, 95% CI [0.78, 1.00],  $p < .001$  (one-tailed), with all leaders showing an improvement across the behaviors. The result that meeting leaders showed greater use of target behaviors at meetings that were held post-training provides support for Hypothesis 1.

Similar results were shown at a one-month follow up, 95% CI [0.72, 1.00],  $p < .01$  (one-tailed), with leaders maintaining their use of needs-focused behaviors at

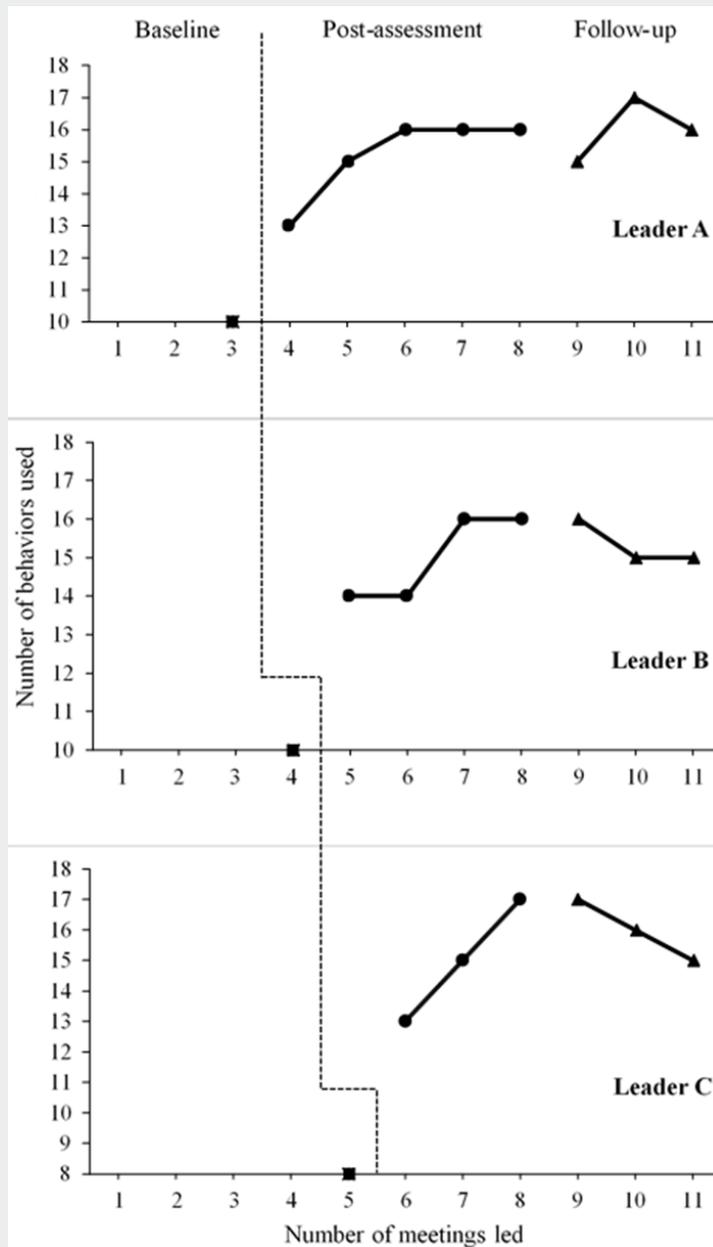


Figure 1. Number of needs-focused behaviors, out of 18, shown by three organizational leaders across meetings at baseline, post-assessment, and follow-up.

Because the results of the intervention on meeting attendees were obvious by visual inspection, we opted not to use a randomization test, which produces complicated results. Instead, to analyze changes in attendee variables, we used the split-middle method of trend estimation (Miller, 1985) in addition to the binomial theorem to test for significance (Hollander

& Wolfe, 1973). The simpler analysis produced results that are relatively easy to understand and are similar to those needed for evaluating leader behavior. Exact binomial tests showed that attendees provided significantly higher ratings for the extent of their satisfaction with meetings at post-training in comparison to baseline, 95% CI [0.78, 1.00],  $p <$

.001 (one-tailed), in addition to psychological need satisfaction and meeting productivity, 95% CI [0.56, 1.00],  $p = .019$  (one-tailed). Taken together, the results that attendees rated more highly the degree of their psychological needs satisfaction and felt greater satisfaction with meetings and overall meeting productivity provides support for Hypothesis 2.

A month after the post-training assessment, attendee ratings remained significantly elevated from baseline,

95% CI [0.72, 1.00],  $p = .002$  (one-tailed) across all attendee variables (i.e., attendee-needs satisfaction, meeting satisfaction, and meeting productivity). This result provides further support for Hypothesis 3 in that improvements from baseline endured for at least one month after leaders received training for needs-focused behavioral skills. Figures 2 to 4 show changes in attendee-group ratings for psychological need satisfaction, satisfaction with meetings, and level of meeting productivity, respectively.

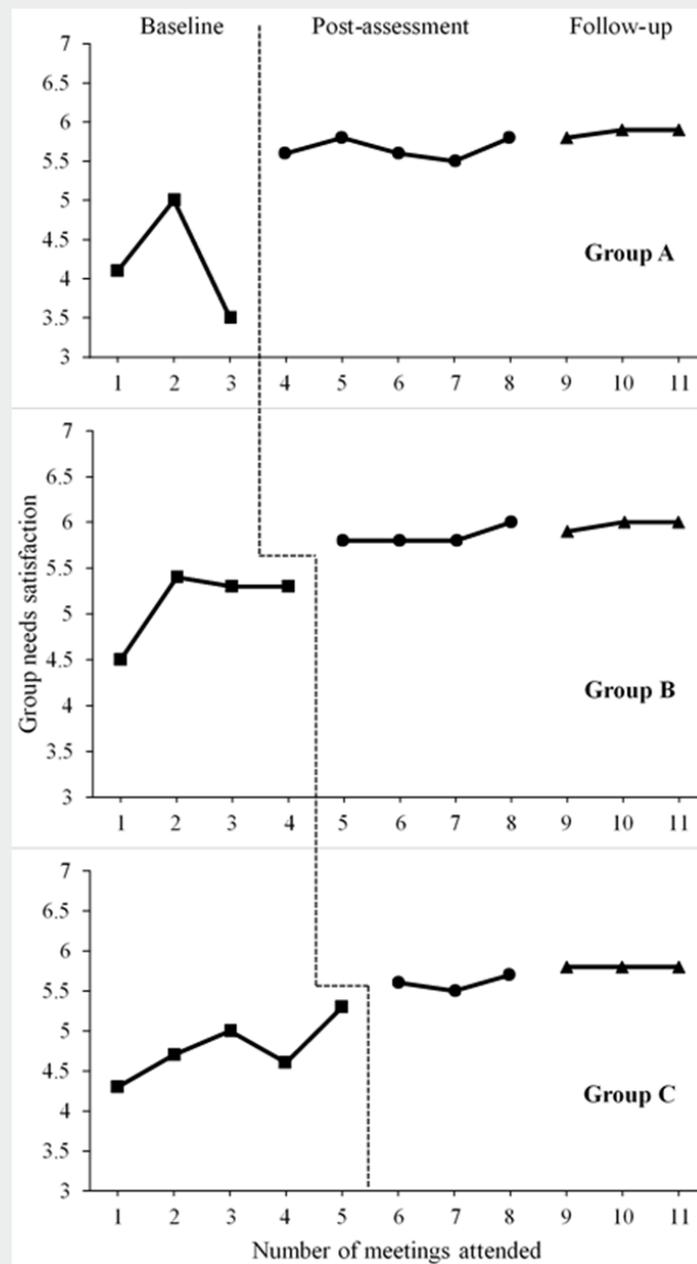


Figure 2. Changes in attendee ratings of psychological needs satisfaction across three work-groups at baseline, post-training, and follow-up meetings

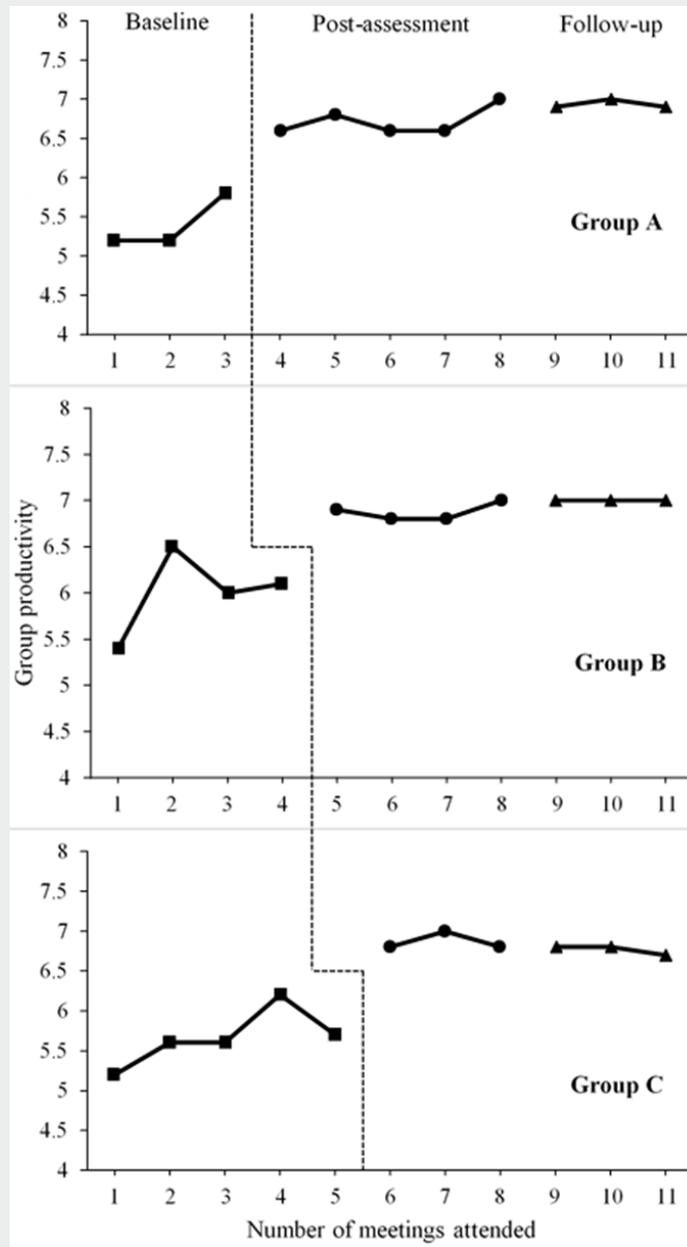


Figure 3. Changes in attendee ratings of meeting satisfaction across three work-groups at baseline, post-training, and follow-up.

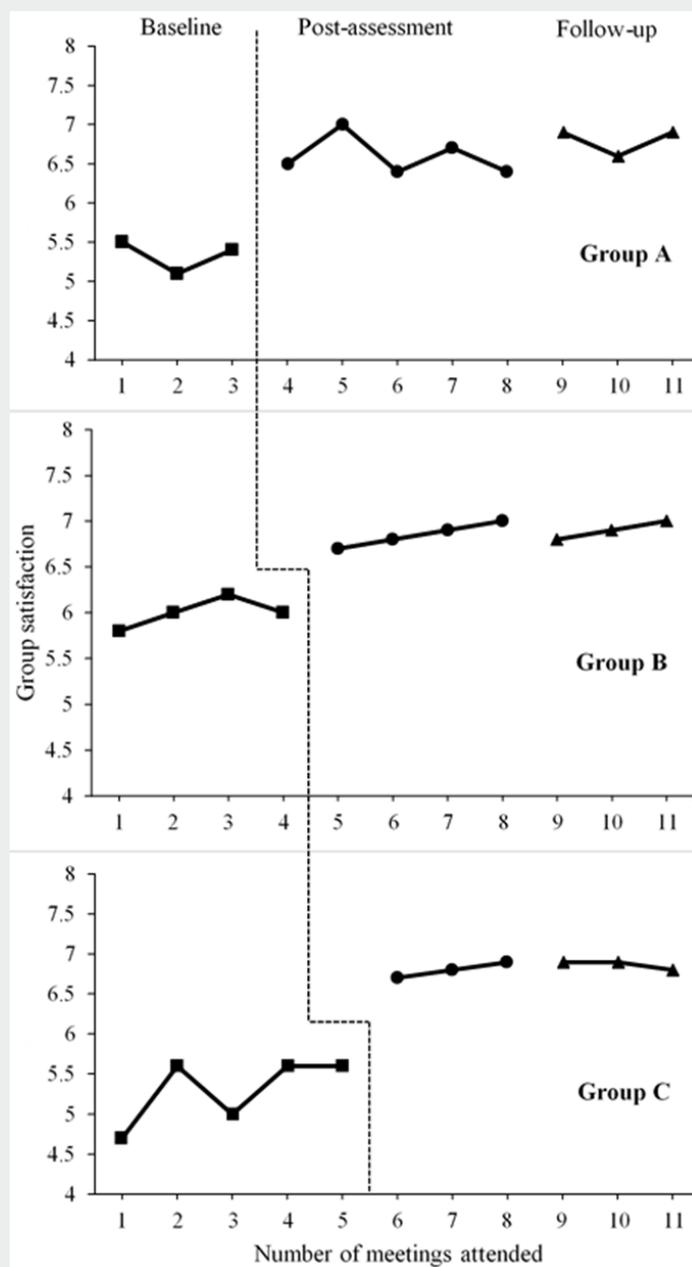


Figure 4. Changes in attendee ratings of meeting productivity across three work-groups during each phase of the study.

## Discussion

The aim of the current study was to assess the effectiveness of role-play-based training on meeting leaders' use of target behaviors and the meeting experiences of their groups of attendees. The results showed a significant increase in the use of needs-

based target behaviors by leaders and significant increases in attendee ratings of psychological need satisfaction, meeting satisfaction, and meeting productivity. Follow-up results indicated that meeting leaders continued to apply attendee-needs-based behaviors for up to seven weeks after receiving the training. However, meeting leaders reported a small

decline in using needs-supportive behaviors at follow-up meetings. Attendee group ratings of psychological need satisfaction for autonomy, competence, and relatedness also remained significantly elevated at follow-up meetings.

The findings of the present study extend the results of previous small-N research in which needs-focused training for mid-level managers led to an increase in attendee ratings of meeting satisfaction and productivity (Douglass et al., 2015). The present study adds to the findings of Douglass et al. that needs-focused training (1) had positive effects on attendee-needs satisfaction, (2) that the training had positive effects on leader behavior and meetings that were held in a for-profit corporation, and (3) that the positive effects endured for up to seven weeks after the end of the leader training.

The present study had three main limitations. First, the use of subjective self-report measures by participants may have inflated the rated effects of the training (Morgan & Morgan, 2008; Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Second, the findings may be a result of experimenter demand effects (Zizzo, 2010), since the study aims were not fully masked from participants who were also provided with a monetary incentive for completing the study. Third, the results might only be applicable to cultures similar to that of Great Britain, where the study was completed.

Future research could explore the effects of the present leader training in different types of organizations and different cultures. Because meeting leaders' use of learned behaviors showed a small decline at the follow-up, future research could examine how long leader changes endure and whether meeting leaders benefit from follow-up training sessions. Finally, researchers might explore which of the 18 needs-focused leader behaviors contribute specifically to the satisfaction of attendee-needs for autonomy, competence, and relatedness.

**Practical Implications for Leaders Based on the Current Findings.** Generally speaking, it is good practice for organizational leaders to work toward satisfying employees' needs by creating

an autonomy-supportive work atmosphere (Deci, Connell, & Ryan, 1989). One potential way that leaders can raise autonomy among work-groups and settings is by introducing work-related tasks and activities – together with meetings – that help employees to express themselves fully and confidently in a safe and trusted space (Deci, Eghrari, Patrick, & Leone, 1994).

With positive leadership comes positive change in organizations – and the overall employee mindset (Schneider et al. 2018). Satisfaction of employees' inherent psychological needs, in turn, motivates employee-groups and boosts worker morale by empowering employees to engage in work-activities and to perform well at work (Stone, Deci, & Ryan, 2009). Subsequently, employees feel greater satisfaction with work and form close bonds with colleagues – and likely feel more committed to their jobs and organizations at large (Baard et al., 2004; Mroz & Allen, 2015).

In conclusion, the results of the current study provide evidence to support the implementation of needs-focused leader training both in future research studies and in organizational practice. Focusing on the application of needs-based behaviors during workplace meetings, organizational leaders can improve the meeting experience by aiming to satisfy the psychological needs of meeting attendees.

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