Developing a Taxonomy of Team Leadership Behavior in Self-Managing Teams

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This paper develops a taxonomy of leadership behaviors that team leaders perform in the context of self-managing teams. A review of the leadership and team effectiveness literature identified 517 unique behavioral items. These items were classified into 15 behavioral categories that will serve as a new measure of team leadership.
Structuring work around self-managing teams has become a fact of organizational life (Cascio, 1995; Hackman, 1990; Lawler, 1986; Manz & Sims, 1993). One of the potential benefits of moving to a team structure is the reduced need for hierarchical command and control leadership. This is due to the fact that self-managing teams have a large amount of autonomy and control over their immediate work environment (Cohen, Chang, & Ledford, 1997). Because such teams manage most of their own activities, the presence of team leadership is something of a paradox.

Sociotechnical systems theory holds that variance should be controlled as close as possible to its origin (Cherns, 1978). The increased autonomy and control found in team structures would reduce the need for a team leader because many of the managerial and maintenance functions often performed by the team leader are now charged to the team. On the other hand, a number of researchers have indicated that leadership in teams is critical and that leaders of self-managing teams are not only helpful but necessary (Barker, 1993; Cummings, 1978; Mills, 1983; McIntyre & Salas, 1995). As Lawler (1982) notes, “supervising a self-managing work team is a very different function than supervising in a traditional work team” (p. 302). For example, the leader may assume a developmental role, link the group to the larger organizational context, or stimulate group motivation. The roles assumed by the leader are different than those specified in traditional leadership theories for three reasons: (1) they relate to the work team as a unit, (2) they are concerned with characteristics associated with teams, and (3) they focus on team-level constructs which may not have individual-level analogs.

Recent research has begun to recognize the value of external leadership in the context of self-managing teams. External leaders are technically not members of the team
but maintain specific oversight and leadership responsibilities related to the team. Morgeson (in press) identifies three reasons why external leaders play an important role in the effectiveness of self-managing teams. First, self-managing teams are rarely delegated full decision-making authority (Yukl, 2002). External leaders are often responsible for making key team decisions (e.g., hiring and firing, dealing with customers, purchasing equipment). Second, external leaders are well suited to perform certain team functions, including encouraging the team (Manz & Sims, 1987), managing the team’s boundaries (Ancona, 1990), and dealing with unexpected problems or events that occur in the team context. Finally, research shows that external leaders are frequently found in team-based settings and can positively impact team functioning (Hackman, 2002; Manz & Sims, 1987; McIntyre & Salas, 1995).

Despite the evidence and support for the role of external leaders in self-managing teams, our understanding of how leaders manage teams is limited (Zaccaro, Rittman, & Marks, 2001). Only a small amount of research has empirically examined what functions external leaders are well suited to perform (e.g., Ancona, 1990; Manz & Sims, 1987; Morgeson, in press) and how these functions promote effectiveness in self-managing teams. Further, the existing team leadership literature yields multiple conceptualizations of team leadership, numerous scales, and a variety of leader behaviors. The purpose of the present research is to advance our understanding of external team leadership by developing a comprehensive and exhaustive taxonomy of the leadership behaviors that team leaders do (or can do) in the context of team performance.

The primary contribution of this paper is twofold. First, there has been relatively little research directly examining team leadership and the behaviors that team leaders can
engage in to foster team effectiveness – especially in the context of self-managing teams.

This taxonomy of team leadership behaviors integrates insights across multiple research domains, including the team leadership, team effectiveness, and traditional leadership literatures, to identify exactly what leaders of self-managing teams actually do. Second, effective taxonomic systems have provided a basis for many fundamental advances in the organizational and social sciences (Sokal & Sneath, 1963; Fleishman, Mumford, Zaccaro, Levin, Korotkin, & Hein, 1991). Taxonomic efforts serve the sciences by specifying the phenomenon of interest and its key structural components (Fleishman & Quaintance, 1984). Taxonomies stimulate parsimony in complex fields while providing a helpful and necessary framework for hypothesis generation (Messick, 1989). This particular taxonomy identifies the key behavioral components of team leadership and thus establishes the theoretical foundation for examining the role of leadership in teams.

This paper is organized into four sections. First, we briefly discuss the value of examining team leadership using a functional or behavior-based approach. Second, much has been written about the essential steps or processes involved in developing effective taxonomic systems (e.g., Fleishman et al., 1991). In this section, we review in detail the literature review and behavioral classification processes that were used. Third, we present the resulting 15 behavioral categories and their respective (preliminary) measurement items that were developed as part of this process. Finally, we discuss implications on and directions for future research on team leadership as a result of this leader behavior taxonomy.
Functional Leadership in Teams

The functional leadership approach has been recognized by numerous researchers as a useful theoretical model for understanding external team leadership (Hackman & Walton, 1986; Hill, 2001; McGrath, 1962; Morgeson, in press; Zaccaro, Rittman, & Marks, 2001). Functional leadership theory suggests that team leaders “do, or get done, whatever is not being adequately handled for group needs” (McGrath, 1962, p. 5). This approach is helpful because it indicates that the team leadership role is varied, depending on the needs of the team.

The functional approach to team leadership suggests that team leader behaviors fall into one of two general categories. First, team leaders monitor the internal and external environment for information that will affect team functioning. These monitoring behaviors include specific actions such as monitoring the team’s absolute level of performance (Komaki, Desselles, & Bowman, 1989; McGrath, 1962), gathering information on events that might positively or negatively influence the team (Hackman & Walton, 1986), and making clear any performance conditions or environmental changes related to team functioning (Kozlowski, Gully, McHugh, Salas, & Cannon-Bowers, 1996; McGrath, 1962).

Second, team leaders intervene or otherwise implement solutions to maintain or improve team functioning (Hackman & Walton, 1986; McGrath, 1962; Zaccaro et al., 2001). Examples of team leader behaviors in this category include supporting team self-management (Cohen, Chang, & Leford, 1997; Manz & Sims, 1987), providing performance feedback (Komaki et al., 1989), and coaching the team (Edmondson, 1999; Kirkman & Rosen, 1999; Wageman, 2001). Although certainly helpful, these two general
categories might not capture the full range of leader options when working with a team. The taxonomy developed in this paper seeks to expand our understanding of the behavioral domain of team leadership by integrating the variety of perspectives on team leadership with the team effectiveness and traditional leadership literatures, with the purpose of identifying and classifying all of the possible behaviors that team leaders could engage in to foster team effectiveness.

Developing a Team Leader Behavior Taxonomy

According to Fleishman and Quantinance (1984), three essential steps are required of any classification or taxonomic effort. First, the target behavioral domain must be clearly defined. For the taxonomy presented here, the behavioral domain is defined specifically as leadership functions or behaviors that external team leaders perform in the context of self-managing teams. The second step in developing viable classification systems is to determine which observable properties or outcomes are of interest in a common domain and select variables that theoretically cause these properties or outcomes. Specific to team leadership, the outcome of interest is the effectiveness of self-managing teams. Thus, all behaviors included in this taxonomy are expected to influence the effectiveness of self-managing teams. The third and final step in the classification process is to assess the internal and external validity of the taxonomy. Via the sorting process and coding scheme presented in this paper, we provide an initial examination of the taxonomy’s validity in this paper. Future efforts will empirically examine the internal and external validity of the taxonomy, but these steps are beyond the scope of this paper.
Method

For the present research, we reviewed published articles and book chapters on team leadership, paying particular attention to existing measures of team leadership. Our primary focus was to compile all of the possible behaviors that team leaders can perform. We also reviewed the traditional leadership research, which focuses mostly on the leadership of hierarchical organizations and teams, for additional insights into functions or behaviors relevant to external leaders of self-managing teams. Finally, to understand what leaders can do to help foster team effectiveness, we reviewed the team effectiveness literature to identify the key input and process factors identified in this literature. Any behaviors not identified in the leadership literature but important influencers of key inputs or processes for team effectiveness were included.

To identify relevant published articles and book chapters, we conducted a literature search on the ISI Web of Science index using the following keywords: team or group, leadership, performance, and/or effectiveness. In addition, we manually searched the reference sections of all articles and book chapters on team leadership for other publications. In total, we reviewed 85 articles and book chapters that informed the taxonomy of team leadership behaviors presented in this paper.

Initial Classification Process

Via this comprehensive literature review, we compiled a comprehensive list of possible team leadership behaviors, resulting in a set of 517 unique behavioral items relevant to team leadership. The items originated either directly from existing measures used in empirical studies of team leadership, or items were adapted from theoretical, conceptual, or qualitative reviews of leadership behaviors. We then established a set of
nine rules (see Table 1) that could be applied to specific items during the classification process to determine which items should be excluded from the classification system. These exclusion rules ensured that all of the possible items were evaluated consistently and using the same metrics. Using these rules, two raters independently evaluated and coded the 517 items into logical behavioral categories. Rather than develop a set of a priori behavioral categories that items could be classified into, we allowed the behavioral categories to emerge from our independent judgments of common themes and characteristics among items. Rater 1 developed 13 categories, whereas Rater 2 developed 37 behavioral categories. The difference in the number of categories between Rater 1 and Rater 2 was due to Rater 2 employing more of a reductionist approach in classifying items into categories. The first round of coding involved attempting to place Rater 2’s 37 categories into Rater 1’s categories. We discussed the categorization schema until we reached consensus on the number of distinct categories. The goal was to create mutually exclusive and exhaustive categories and develop a definition for each category to facilitate subsequent coding. The definitions were developed with a level of specificity that provided guidance on what behaviors should and should not be included in each category. This effort resulted in 15 team leader behavior categories that were used as an organizing framework in the next round of coding. Further, we achieved 56% agreement during the first round of coding regarding which items should be excluded from the classification system. These items were excluded from subsequent coding, whereas the items for which we did not agree were preserved for subsequent coding.
Final Round of Classification

Using this revised set of team leader behaviors, we then conducted a second round of coding using the 15 behavioral categories and their associated definitions. This coding process yielded an overall agreement rate of 67% across the 15 categories and a 64% level of agreement on items that should be excluded from the classification system. After eliminating the items we agreed should be excluded, we then discussed those items that each of us independently determined should be excluded (without agreement) and came to consensus on whether the item should be eliminated from consideration or qualified for inclusion into the classification system. After reaching consensus on these items, our revised level of agreement across the 15 categories was 76%. We then discussed each of the remaining items until consensus was reached on the most appropriate categorization for each item. This process resulted in 100% agreement across the 15 behavioral categories.

Item Selection

The final step in developing the taxonomy of team leadership behaviors was to reduce the number of items per behavioral category. This process was conducted by selecting those items that best represent each category. We chose items based on the extent to which they sampled the content domain and are consistent with the category definition.

Results & Discussion

Fifteen behavioral categories emerged within the taxonomy of leadership behaviors in self-managing teams. Table 2 lists the final set of behavioral items that
comprises each of these behavioral categories. Based on existing literature, each of the behavioral categories is defined as follows:

1. *Select Team Members*: Picks people for team membership. The team leader is responsible for composing the team with the right mix of people given each individual’s profile (e.g., personality, knowledge, skills) and the various contextual factors (e.g., task environment) that influence team performance. This includes ensuring the team has highly able and motivated members.

2. *Train & Develop Team*: Educates, trains, develops and instructs individuals or team on task or interpersonal processes. As teams develop over time, a critical input to team performance is the acquisition of skills and knowledge. The team leader can engage in training and instructional behaviors that facilitate this process. Instruction or training can focus on both basic skills (e.g., interpersonal) or task-related knowledge and may be directed at new or existing members of the team.

3. *Perform Team Task*: Participates, intervenes, or otherwise performs some of the team's task work. Depending on various contextual factors, such as workload intensity and distribution, it may be necessary for the team leader to directly participate in the team’s task in order to maintain team performance.

4. *Structuring & Planning*: Determines or assists in determining how work will be accomplished (e.g., method), who will do which aspects of the work (e.g., role clarification), and when the work will done (e.g., timing, scheduling, work flow). These behaviors, which serve to direct the team’s performance,
are critical for coordinating team efforts, developing task performance strategies, and standardizing team processes.

5. **Sense Making**: Changes or modifies how the team thinks about internal or external events or experiences. The team leader, given the unique position outside of the team’s day-to-day activities, is well equipped to help the team interpret and act in response to unique situations, events or changes in the team environment.

6. **Goal Setting**: Establishes goals for the team. Challenging yet realistic goals are critical for team performance. The team leader works with the team and individual team members to develop performance goals.

7. **Mission**: Provides or ensures that the team has a clear purpose and understands the purpose. Teams should have a common vision and members should understand the direction and purpose of the team. The team leader engages in behaviors that help develop and articulate a clear mission for the team.

8. **Challenge Team**: Challenges team assumptions, methods, and processes and seeks new ways to accomplish work. Team leaders are often in a unique position that allows the leader to question or challenge team processes, which can often lead to new and better ways of accomplishing team goals.

9. **Monitor Team**: Monitors internal team processes/performance and external team context (not action-taking). The team leader, given the unique position outside of the team’s day-to-day activities, is well equipped to monitor and
evaluate the team’s environment. The leader engages in a process of
information seeking that then informs future action.

10. **Resources**: Obtains and provides informational, financial, material, and
personnel resources to team. Teams must have the resources necessary for
team performance, and the team leader often has unique access to and must
take action to secure these resources.

11. **Performance Expectations**: Establishes expectations of team members. The
team leader determines and articulates what is expected of the team as well as
individual team members.

12. **Problem Solving**: Solves or helps solve team task- or relationship-related
problems (e.g., problem assessment, solution development, implementation of
solution). Teams are faced with problems that must be addressed, and the
team leader is in a position to either directly solve problems or facilitate the
team’s efforts to solve problems.

13. **Manages Team Boundaries**: Communicates and coordinates with key
constituents or units outside of the team (e.g., other teams and leaders, senior
management, customers); buffers team from external forces and events. The
team leader, given the unique position outside of the team’s day-to-day
activities, is well equipped to manage activities outside of the team.

14. **Feedback**: Provides evaluative feedback and rewards/punishment to team and
team members regarding processes, performance, and external team context.
Team leaders must review team performance and provide feedback to both the
team and individual team members.
15. Encourages Team Self-Management: Supports team functioning by encouraging the team to act autonomously. Self-managing teams are characterized by high autonomy and control, and team leaders engage in behaviors that support or help develop the team’s ability to manage itself.

Directions for Future Research

Based on this taxonomic system of team leadership behavior, several directions for future research can be identified. First, the final step in any taxonomic effort is evaluation of the classification scheme (Fleishman & Quaintance, 1984). A series of construct validity tests must be conducted to test the meaningfulness of the classification system. First, an assessment of internal validity should examine the structure of the leader behavior dimensional assignments and dimensional interrelationships. Further, an examination of the classification system’s relationship with leader and team effectiveness must be conducted to validate the predictive value of the taxonomy. Establishing the validity and predictive nature of this classification system will result in a new measure of team leadership that can be used in future research.

Upon establishing the construct validity of the taxonomy of team leadership behaviors, this particular classification system should serve as the foundation for a new theoretical model of external leadership in self-managing teams. The core set of behaviors identified in this taxonomy explain “what” leaders do within the context of self-managing teams to influence team effectiveness. Future theoretical (and empirical) considerations should examine the antecedents to these behaviors. One form of antecedent that is not well understood is “why” team leaders perform the behaviors they do, or in other words the purpose the team leader seeks to achieve. One proposition is that
a leader may have a single purpose in mind but achieve that purpose through different or a mix of leadership behaviors. Another proposition is that specific leader behaviors may serve or help to achieve several different purposes of team leaders. Identifying the set of purposes that team leaders seek to achieve and then delineating the relationship between purpose and action would be highly valuable.
Table 1

Rules for Excluding Items

To be included in the classification process, each item must meet the following rules:

1. Must be a behavior at the individual leader-level; cannot be a behavior that the team performs
2. Must be behavioral in nature; cannot be a description of a leader style, viewpoint, reaction, or expectation
3. Does not necessarily have to reference the leader as long as one can infer that the leader is the person performing the behavior
4. Must be a specific behavior and not a leadership category (e.g., motivate, train, reward, etc.)
5. Must refer to a behavior the leader performs; cannot be framed as something the leader does not do (i.e., no “absence of behavior”)
6. Cannot include an evaluative judgment of leader behavior (“leader effectiveness”)
7. Cannot be framed as an “outcome” or purpose of leader action
8. Must be specific / detailed; cannot be general or ambiguous
9. Cannot be a double or triple-barrel item
Table 2

Team Leadership Behaviors

Select Team Members
- Selects high ability team members
- Selects team members that have worked well together in the past
- Selects team members that have worked well with the leader in the past
- Selects team members to ensure the right mix of skills on the team
- Selects highly motivated team members

Train and Develop Team
- Ensures the availability of problem solving and interpersonal skills training
- Helps new employees in the team to learn how to do the work
- Provides team members with task-related instructions
- Helps new employees in the team to further develop their skills
- Helps the team learn from past experiences

Perform Team Task
- Will “pitch in” and help the team with its work
- Will “roll up his/her sleeves” and help the team do its work
- Works with team members to help do work
- Will work along with the team to get its work done
- Intervenes to help team members get the work done

Structuring and Planning
- Defines and structures own work and the work of the team
- Identifies when key aspects of the work need to be completed
- Works with the team to develop the best possible approach to its work
- Develops or helps develop standard operating procedures and standardized processes
- Clarifies task performance strategies
- Assigns roles to specific team members

Sense Making
- Changes the way the team interprets things that happen within the team
- Changes the way the team interprets things that happen outside the team
- Modifies how the team thinks about events or situations
- Helps the team interpret internal or external events
- Helps team make sense of ambiguous situations
Team Leadership Behaviors

Goal Setting
Sets or help set challenging and realistic goals
Establishes or helps establish goals for the team’s work
Assigns performance goals to the work team
Works with team and individuals in team to develop performance goals
Reviews team goals for realism, challenge and business need

Mission
Ensures the team has clear direction
Emphasizes the importance of having a collective sense of mission
Develops and articulates a clear mission for the team
Helps provide a clear vision of who and what the team is
Helps provide a clear vision of where the team is going

Challenge Team
Re-examines critical assumptions to question whether they are appropriate
Emphasizes the value of questioning team members
Questions the traditional way of doing things
Suggests new ways of looking at how to complete work
Contributes ideas to improve how the team performs its work

Monitor Team
Monitors changes in the team’s external environmental
Monitors team and team member performance
Keeps informed about what other team leaders are doing
Requests task-relevant information from team members
Notices flaws in task procedures or team outputs

Resources
Obtains and allocates resources (materials, equipment, people, and services)
Seeks information and resources to facilitate the team’s initiatives
Sees to it that the team gets what is needed from other teams
Makes sure that the equipment and supplies the team needs are available
Helps the team find and recruit “expert” resources

Performance Expectations
Defines and emphasizes team expectations
Asks that team members follow standard rules and regulations
Lets the team know what is expected of them
Lets the team know that he/she expects us to do our work well
Maintains definite standards of performance
Team Leadership Behaviors

**Problem Solving**
- Implements or helps the team implement solutions to problems
- Seeks a broad range of perspectives when solving problems
- Creates solutions to work problems
- Participates in relevant problem solving with the team
- Helps the team develop solutions to task and relationship-related problems

**Manages Team Boundaries**
- Buffers the team from the influence of external forces or events
- Helps different work teams communicate with one another
- Acts as a representative of the team with other parts of the organization (e.g., other teams; management)
- Advocates on behalf of the team to others in the organization
- Helps to resolve difficulties between different teams

**Feedback**
- Rewards the performance of team members according to performance standards
- Reviews relevant performance results with the team
- Communicates business issues, operating results and team performance results
- Provides positive feedback when the team performs well
- Provides corrective feedback

**Encourages Team Self-Management**
- Encourages the team to be responsible for determining the methods, procedures, and schedules with which the work gets done
- Urges the team to make its own decisions regarding who does what tasks within the team
- Encourages the team to make most of its own work-related decisions
- Encourages the team to solve its own problems
- Encourages the team to be responsible for its own affairs
- Encourages the team to assess its performance
References


