

Work Groups and Teams in Organizations

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Abstract

[Excerpt] Our objective in this chapter is to provide an integrative perspective on work groups and teams in organizations, one that addresses primary foci of theory and research, highlights applied implications, and identifies key issues in need of research attention and resolution. Given the volume of existing reviews, our review is not intended to be exhaustive. Rather, it uses representative work to characterize key topics, and focuses on recent work that breaks new ground to help move theory and research forward. Although our approach risks trading breadth for depth, we believe that there is much value in taking a more integrative view of the important areas of team research, identifying key research themes, and linking the themes and disparate topics closer together. To the extent that we identify new and necessary areas of theory development and research, the value of this approach will be evident.

Keywords

work groups, teams, organizations, performance, processes, effectiveness.

1. INTRODUCTION

THE NATURE OF WORK TEAMS AND GROUPS

What Is a Team?

Although some scholars distinguish work teams and work groups (Katzenbach & Smith, 1993), we make no such distinction and use the terms interchangeably. Others distinguish dyads or triads from larger teams. Although we acknowledge that intra-team processes increase in complexity with more team members, we do not highlight these distinctions in this chapter. Work teams and groups come in a variety of types and sizes, cutting across different contexts, functions, internal processes, and external linkages.

However, several features provide a foundation for a basic definition. Work teams and groups: (a) are composed of two or more individuals,

(b) who exist to perform organizationally relevant tasks,
(c) share one or more common goals,
(d) interact socially,
(e) exhibit task interdependencies (i.e., workflow, goals, outcomes),
(f) maintain and manage boundaries, and
(g) are embedded in an organizational context that sets boundaries, constrains the team, and influences exchanges with other units in the broader entity (Alderfer, 1977; Hackman, 1987; Hollenbeck, Ilgen, Sego, Hedlund, Major, & Phillips, 1995; Kozlowski, Gully, McHugh, Salas, & Cannon-Bowers, 1996a; Kozlowski, Gully, Nason, & Smith, 1999; Salas, Dickinson, Converse, & Tannenbaum, 1992).

We view teams from an organizational systems perspective. Teams are embedded in an open yet bounded system composed of multiple levels. This broader system sets *top-down* constraints on team functioning. Simultaneously, team responses are complex *bottom-up* phenomena that emerge over time from individual cognition, affect, behavior, and interactions among members within the team context (Kozlowski & Klein, 2000). Based on this perspective, we assert that four conceptual issues are critical in efforts to investigate and understand work teams:

(1) task or workflow interdependence,
(2) contextual creation and constraint,
(3) multilevel influences, and
(4) temporal dynamics. We briefly introduce these issues below and use them as a basis to identify both the strengths and limitations of extant research.

Teams are embedded in an organizational context and the team itself enacts a context for team members. The broader organizational context characterized by technology, structure, leadership, culture, and climate constrains teams and influences their responses. However, teams also represent a proximal context for the individuals who compose them. Team members operate in a bounded interactive context that they in part create by virtue of their attributes, interactions, and responses. Team-level normative expectations, shared perceptions, and compatible knowledge are generated by and emerge from individual interactions. Dynamic team processes in part create contextual structure that constrains subsequent team processes. Thus, the team context is a joint product of both top-down and bottom-up influences.

2. Types of Work

Teams Work teams can assume a wide variety of different forms—they are not unitary entities. Many factors or contingencies relevant to effective team functioning vary across different types of teams, creating challenges for studying and understanding them. This fact is reflected in the many efforts to describe, classify, or otherwise distinguish differences among of teams. We consider some of the major distinctions below and then comment on their theoretical and research value.

General Typologies.—General typologies are an effort to distinguish a broad range of team types. For example, Sundstrom and colleagues (2000) integrated the Sundstrom et al. (1990) and Cohen and Bailey (1997) typologies to yield six team categories: (1) production, (2) service, (3)

management, (4) project, (5) action and performing, and (6) advisory. Production teams represent core employees who cyclically produce tangible products (e.g., automobile assembly) and vary on discretion to semi-autonomous to self-directed. Service teams engage in repeated transactions with customers (e.g., airline attendants) who have different needs, making the nature of the transactions variable. Senior managers of meaningful business units with primary responsibility for directing and coordinating lower level units under their authority comprise management teams.

More Specific Classifications- In addition to general typologies, researchers have identified more specific types of teams. For example, some scholars have distinguished crews from other types of work teams (e.g., Cannon-Bowers, Salas, & Blickensderfer, 1998). The key distinguishing characteristic is the capability and necessity for crews to form and be immediately prepared to perform together effectively (Ginnett, 1993). Thus, advocates of this distinction assert that crews, unlike more conventional teams, do not go through an identifiable developmental process (Arrow, 1998). Examples include aircrews, military combat units, and surgical teams. However, it is notable that crews are used for team tasks that necessitate high expertise, extensive training, and well-developed, standardized performance guidelines.

The Role of Typology in Understanding Teams- Although there is value in characterizing distinctions across different types of teams, description and classification are merely the first steps in comprehending the implications of such differences for effective team functioning. In our view, it is more useful to focus on the dimensions that underlie apparent differences in team classifications or typologies. Surfacing such dimensions is key to identifying the varying factors or contingencies that determine the effectiveness of different types of teams.

3. TEAM COMPOSITION

Events within teams often reflect the number and type of people who are its members. As a result, considerable research has focused on team composition, or the nature and attributes of team members (for a review, see Jackson & Joshi, in press). Team composition is of research and practical interest because the combination of member attributes can have a powerful influence on team processes and outcomes. A better understanding of such effects will help practitioners to select and construct more effective teams. Moreland and Levine (1992) categorized team composition research along three dimensions. First, different characteristics of a team and its members can be studied, including size, demographics, abilities and skills, and personalities. Second, the distribution of a given characteristic within a group can be assessed. Measures of central tendency and variability are typically used, but special configurations are sometimes measured as well. Third, different analytical perspectives can be taken toward the composition of a team. Team composition can be viewed as a *consequence* of various social or psychological processes (e.g., socialization), as a *context* that moderates or shapes other behavioral or social phenomena, or as a *cause* that influences team structure, dynamics, or performance. We review and discuss team composition issues along each of these three dimensions. First, we provide a

brief review of research that has focused on different characteristics of teams and their members. Second, we discuss issues relating to levels of conceptualization and analysis in research on team composition. Finally, we discuss some practical implications that can emerge from a better understanding of team composition and its effects on team structure, dynamics, and performance.

Team Size

Researchers have offered recommendations concerning the best size for various types of teams. Katzenbach and Smith (1993) suggested that work teams should contain a dozen or so members, whereas Scharf (1989) suggested that seven was the best size. A variety of other such recommendations are easily found in the literature. Such recommendations are difficult to evaluate, because they are often based on personal experiences rather than empirical evidence. However, it is also difficult to determine what constitutes appropriate team size from empirical research. Some research suggests that size has a curvilinear relationship with effectiveness such that too few or too many members reduces performance (Nieva, Fleishman, & Reick, 1985), whereas other studies have found team size to be unrelated to performance (Hackman & Vidmar, 1970; Martz, Vogel, & Nunamaker, 1992) or increasing team size actually improves performance without limit (Campion, Medsker, & Higgs, 1993).

Demographic Diversity

The extent to which team processes and outcomes are influenced by the homogeneity or heterogeneity of team member demographic characteristics has also been the focus of considerable attention, although it is difficult to determine whether team diversity is desirable. Studies have reported that diversity has positive (Bantel, 1994; Gladstein, 1984), negative (Haleblian & Finkelstein, 1993; Jackson et al., 1991; Pelled, Eisenhardt, & Xin, 1999; Wiersema & Bird, 1993), or even no effects on team effectiveness (Campion et al., 1993). These mixed findings have led reviewers to draw different conclusions regarding the effects of diversity: Bettenhausen (1991) concluded that groups composed of similar members perform better than those composed of dissimilar members, whereas Jackson, May, and Whitney (1995) concluded that diversity tends to have a positive relationship with team effectiveness.

Personality.

The last decade has witnessed renewed interest in personality that has been extended to teams as researchers have examined the impact of team personality composition on team effectiveness. In general, this research has found a link between aggregate team member personality and team performance (Jackson, 1992a; Moreland & Levine, 1992).

Cognitive Ability. Among the factors studied in relation to work team effectiveness, one consistent predictor is team members' collective cognitive ability. Team members' average cognitive ability is related to team performance among military tank crews (Tziner & Eden, 1985), assembly and maintenance teams (Barrick et al., 1998), and service teams (Neuman & Wright, 1999). In addition, LePine, Hollenbeck, Ilgen, and Hedlund (1997) found that the

performance of hierarchical decisionmaking teams was enhanced when both the leader and staff were high in cognitive ability.

4. TEAM FORMATION, SOCIALIZATION, AND DEVELOPMENT

Formation

Teams may be formed anew, where all members are new to each other and the team. Or, teams with a developmental history may have influxes and outflows of members that affect its composition and character. In either instance, development and newcomer socialization are relevant issues. Socialization has generally been seen as a mechanism for bringing new members into existing teams or groups. With few exceptions, much of this theory and research has focused on the socialization of individuals into the organization and, while theoretically relevant, has paid relatively little attention to the work group or team as central to the socialization process. That is, the vast majority of work on socialization in work settings focuses on organizational influences, but is far less sensitive to the proximal social and work context within which socialization actually takes place. While socialization is a critical aspect of team maintenance and continuance, we know relatively little about it in the team context.

Group and Team Socialization. Moreland and Levine (1982) detail a model of group socialization that focuses on membership processes, primarily applicable to autonomous voluntary groups who control their own membership and are not nested in a broader organizational context. Its major focus is on mutual decisions on the part of a newcomer and the group regarding joining, assimilation and accommodation, and continuance or withdrawal of membership. The model spans five phases: investigation, socialization, maintenance, resocialization, and remembrance. Difficulties in assimilation or accommodation may prompt the group to resocialize a newcomer. Resocialization failure leads to lower commitment and exit. Aspects of the model are potentially relevant to team socialization—in particular its explicit attention to the group as the primary locus of socialization and mutual expectations as drivers of the process.

Development

Classic Stage Models. Several models describe the developmental stages groups pass through over their life span. The descriptive characteristics of these models are remarkably parallel to Tuckman's (1965) widely cited model of group development (Kozlowski et al., 1999). Tuckman reviewed the group literature, defined by therapy, T-group, natural, and laboratory group studies, and proposed that groups go through the developmental stages of *forming*, *storming*, *norming*, and *performing*.

5. TEAM EFFECTIVENESS, PROCESSES, AND ENHANCEMENTS

Team Effectiveness

Most models of team effectiveness begin where most models of team development end. Models

of team effectiveness generally assume mature teams that have completed a formative developmental process. Most models of team effectiveness are at least loosely formulated around an Input-Process- Outcome (IPO) framework posited by McGrath (1964); inputs are the primary cause of processes that in turn mediate the effect of inputs on outcomes.

Team Processes

Like the effectiveness area, there is an extensive literature on team processes, the concept itself is so broadly defined as to be ill defined, and there is little convergence on a core set of processes. Much of the small group literature primarily addresses “natural” group processes that unfold in voluntary groups that have no broader embedding context (i.e., the organization) and no task-driven interdependencies, hence, the focus on interpersonal processes involved in group attraction (e.g., cohesion) and divisiveness (e.g., conflict). Although such processes are certainly of relevance to work teams, other process mechanisms are more relevant to fitting team member interactions to task workflows. To organize our review of team processes, we focus on cognitive, affective/motivational, and behavioral mechanisms.

Cognitive Constructs and Mechanisms.

Three primary cognitive mechanisms are represented in the literature: team mental models, transactive memory, and team learning. *Team Mental Models* are team members’ shared, organized understanding and mental representation of knowledge about key elements of the team’s task environment (Klimoski & Mohammed, 1994). Four content domains underlying team mental models have been proposed (Cannon-Bowers, Salas, & Converse, 1993):

- (1) equipment model—knowledge of equipment and tools used by the team;
- (2) task model—understanding about the work that the team is to accomplish, including its goals or performance requirements and the problems facing the team;
- (3) member model—awareness of team member characteristics, including representations of what individual members know and believe, their skills, preferences, and habits; and (4) teamwork model— what is known or believed by team members with regard to what are appropriate or effective processes.

6. TEAM LEADERSHIP AND MOTIVATION

Team Leadership

Most models of team effectiveness recognize the critical role of team leaders. Although there is certainly no shortage of leadership theories, examining this extensive literature is beyond the scope of this chapter (see Yukl & Van Fleet, 1992 for a comprehensive review). However, at the onset we note that the focus of many leadership theories is on traits, such as intelligence and originality (Bass, 1981; Fiedler, 1989), or on the frequency of leader’s activities, such as

telephone calls and scheduled meetings (McCall, Morrison, & Hannan, 1978). Relatively neglected is *what leaders should actually be doing to enhance team effectiveness*—their functional role—a perspective that we believe is more productive.

Team Motivation

The majority of theory and research on motivation has been focused at the individual-level. In fact, relatively little research has specifically examined motivation as it operates in team contexts or at the team-level. Much of what we know about motivation in team contexts comes from research in the field of social psychology that has examined the productivity or process loss that often occurs when individuals work in groups. Although much of this work focuses on individual motivation and performance in the group context—not on team motivation and performance per se, researchers frequently extrapolate effects to the team level.

7. RESEARCH ISSUES AND RECOMMENDATIONS

At the beginning of this chapter, we noted that there was a wealth of material on work groups and teams in organizations. We have endeavored to cover the essence of the most relevant material in this review, and have identified a multitude of issues in need of research attention. In this final section, we highlight what we regard as the major issues that ought to shape future work in the area. We begin with a reconsideration of our four themes—context, task interdependence, levels, and time—to provide a framework for a discussion of general theory and research issues. We then close with more specific recommendations for new research organized around the major topics addressed in the review.

Research Issues

Context. One of the key distinguishing characteristics of the organizational perspective on work groups and teams is appreciation of the fact that they are embedded in a broader system that sets constraints and influences team processes and outcomes. Yet, as one looks across this literature, it is clear that the effects of top-down, higher-level contextual factors on team functioning are neglected research issues. **Task Interdependence.** Recognition of the central importance of team task interdependence to team structure and process is a second key characteristic of the organizational perspective on work groups and teams. For the most part, this appreciation is reasonably well represented in both theory and research which generally regard task interdependence either as a critical boundary condition or a moderator of effects (Saavendra et al., 1993; Wageman, 1999). Given its demonstrated importance, new research that fails to consider the effects of task interdependence for the team phenomenon in question has little relevance to building knowledge in the work groups and teams literature. It is a feature that should be explicitly addressed—either as a boundary condition or a moderator—in all work on groups and teams.

Levels. Teams are composed of individuals and are embedded in a nested organizational systems

structure. Teams do not think, feel, or behave; individuals do, but individuals think, feel, and behave in an interactive context that can shape their cognition, affect, and behavior such that it has emergent collective properties. These emergent properties evolve over time and are further constrained by higher-level contextual factors. A key implication of this organizational systems conceptualization is that team function and process must be regarded as multilevel phenomena (Kozlowski & Klein, 2000). Despite McGrath's persistent calls for greater attention to time in team theory and research, it is perhaps the most neglected critical issue in this area. It is, with few exceptions, poorly represented in theory and is virtually ignored in research that is largely based on cross-sectional methodologies. Temporal concerns are most prominent in the area of team development—where time is generally viewed as a simple linear progression, but it is vitally relevant to all phases of team processes and performance.

Conclusion

Teams are alive and well and living in organizations. This reality is pushing the field of industrial and organizational psychology to shift from a science and practice that is primarily focused on the individual level—our traditional roots—to a field that encompasses multiple levels: individual, team, and organization. Because teams occupy the intersection of the multilevel perspective, they bridge the gap between the individual and the organizational system as a whole. They become a focal point. They challenge us to attend to the organizational context, team task, levels, and time. They challenge us to develop new theories, new methodologies, new measurement tools, and new applications, not to just attempt to dust off and generalize our current ones. This creates major challenges for many of our field's traditional methods (e.g., selection, appraisal, training), but it also creates opportunities for theoretical innovation and advances in practice. Our field has much to learn and much to do, but we are confident that industrial and organizational psychology is capable of meeting the challenge afforded by the organization of work around teams.

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