The objective of this investigation was to determine if Drucker’s management by objectives (or MBO) could be merged with Tuckman and Jensen’s stages of group development. We achieved our objective by examining relevant literature and found that these theories are somewhat dated, but deserve further examination. When combined, they resolve many pitfalls of managing teams for improved performance. MBO meshes well with the team development stages to provide novel insights about managing developing teams. The resulting perspective is called team management by objectives (or TMBO). We discuss the limitations and implications of this work, and suggest possibilities for future research.

INTRODUCTION

Teams are a part of life for many organizations and their employees. A team is a collection of two or more individuals organized for the purpose of accomplishing one or more objectives. The use of teams can be an appropriate means to accomplish objectives when the organization faces complex tasks that can best be achieved through two or more individuals cooperating towards task completion (Wegge, Schmidt, & Hoch, 2009). Although some researchers distinguish between groups and teams (e.g., Gilley & Kerno, 2010), it is common for researchers to use the two terms interchangeably (e.g., Antoni, 2005; Ito & Brotheridge, 2008). For the purposes of this discussion, we adopt the latter, conventional practice. Regardless of the name used, these purposeful collections of employees are common in organizations.

The majority of organizations make use of at least some team-based work (Hills, 2007; Kozlowski & Bell, 2003), so it is not surprising that employees of these organizations will often work as a part of teams (Sonnenst & Volmer, 2010). Furthermore, the use of teams in organizations has increased in recent years (Miller, 2003). What do managers see as the effect of these teams for their organizations? A recent survey (Martin & Bal, 2006) suggests that managers tend to see teams as a critical ingredient in their organizations’ performance. However, this same survey also highlights a common concern voiced by managers of teams and academics studying the use of teams in organizations. The respondents voiced a concern that their teams were not performing optimally (Martin & Bal, 2006). The need to improve team performance is a key motivation for this review.
In this review, we present an approach capable of enhancing the performance of these teams that organizations so frequently employ. To inform our model, we draw upon concepts from the fields of management and human resource development that have withstood intellectual scrutiny over time.

A deeper understanding of management issues can be obtained by reconsidering and applying current concepts in a new and creative way. Furthermore, complementary theories can be linked to further enhance their value for both academics and managers. In this review, we merge two established perspectives, management by objectives (Drucker, 1954) and Tuckman’s model of small group development (Tuckman, 1965; Tuckman & Jensen, 1977). The marriage of concepts that we present here is one of partners that complement one another. This union of concepts can provide insights to both academics and practitioners about enhancing team performance.

The remainder of this review is structured as follows. Initially we explore the concepts that comprise management by objectives. We continue by considering the view of how small groups develop, first proposed by Tuckman (1965) and augmented by Tuckman and Jensen (1977). We then conceptually unite these two complementary perspectives. Afterwards, we consider the limitations of our work and future empirical directions that can be taken based upon this work. We conclude by discussing the implications of our model for research on teams, as well as the practical implications for leaders and members of teams. With this structure laid out, we turn now to management by objectives.

MANAGEMENT BY OBJECTIVES

Management by objectives (or MBO) stands as an example of a controversial management concept that, nevertheless, continues to accumulate evidence of its value for organizational performance. It has been criticized for its negative effects (e.g., for impinging on employees’ creativity (Roth, 2009)). It has also been branded as part of a string of fads calling for caution by managers (Gibson & Tesone, 2001), which have been followed by newer concepts such as quality work life (e.g., Connell & Hannif, 2009; Lau & May, 1998). However, previous research suggests that MBO can improve performance for organizations adopting the principles making it up (e.g., Kluger & DeNisi, 1996). Until recently, there has been a lack of research examining MBO as it applies to teamwork (Wegge, 2000). However, this has begun to change, with research suggesting that MBO’s application to self-managed teams can have beneficial results (Antoni, 2005).

To understand MBO, it is best to consider its principles. When examining those principles, it is important to consider the origin of management by objectives. Peter F. Drucker is often considered to be the originator of management by objectives (as set forth in his seminal 1954 book, The Practice of Management). The concept continued to take hold in the management vocabulary in the 1960’s and 1970’s (Quinn, Faerman, Thompson, & McGrath, 2003). Management by objectives can be applied both by higher-level managers to managers beneath them and by these lower-level managers to the employees that they manage (Drucker, 1954). Management by objectives is based upon communication taking place between manager and employee (Drucker, 1954). The manager and employee engage in a process of jointly crafting the goals that will direct the employee’s efforts and serve as the basis for evaluation (e.g., Drucker, 1954; Gibson & Tesone, 2001; Hertel, Geister, & Konradt, 2005).

A key element of this goal setting is the participation of the employee in the process, as it is argued to help foster the employee’s commitment to the goals (Drucker, 1954). The end result of this goal setting process should be specific in nature, so as to direct the efforts of the employee in ways that further the accomplishment of the high-level goals of the organization (Drucker, 1954).

The manager’s involvement in the process does not end with participating in goal setting with those whom he or she manages. The manager must also enhance the ability of his or her employees to work to accomplish the jointly-set goals. This is accomplished through both motivating and developing the employees (Drucker, 1954). In addition, the manager measures the performance of those he or she supervises and provides them with feedback regarding their work to accomplish their assigned tasks (Drucker, 1954; Hertel, et al., 2005). By acting upon the feedback provided by their supervisor, the
employees alter their subsequent actions to help ensure that their actions become better-aligned with the high-level goals of the organization (Drucker, 1954).

The guidance that Drucker provides for directing the work of one manager or one employee can also logically be extended to instances in which the work of more than one employee needs to be directed towards task accomplishment (i.e., when directing the work of a team). A number of empirical studies and theoretical papers suggest that these teams develop in a sequential fashion over their lifetimes (e.g., Chang, Bordia, & Duck, 2003; Chang, Duck, & Bordia, 2006; Hingst & Lowe, 2008; Largent & Lüer, 2010). Thus, it makes sense to consider how this sequential team development can occur, in order to better understand how management by objectives can be applied to a developing team. Bruce Tuckman and Mary Jensen’s research (1977), which follows, provides a lens on understanding how groups or teams develop over time.

**TUCKMAN AND JENSEN’S MODEL OF SMALL GROUP DEVELOPMENT**

This simple but powerful model is one of a number of so-called stage models of group development (e.g., Ito & Brotheridge, 2008). It is important to consider the reasons for our choosing Tuckman and Jensen’s view of how teams develop. It is not without its critics, as a number of researchers have challenged its view of group development or proposed complex developments of the original models (e.g., Gersick, 1988; Ito & Brotheridge, 2008; Kuipers & Stoker, 2009; Rickards & Moger, 2000). For example, researchers suggest that teams may revisit earlier stages (e.g., Ito & Brotheridge, 2008). Indeed, even its creators acknowledge a number of limitations (e.g., that it was based upon studying a limited set of types of groups) and note that its view of group development may not be applicable to all teams (e.g., Tuckman, 1965).

Though acknowledging such shortcomings, we argue that Tuckman and Jensen’s work has applicability in mixing MBO with small-group development for two reasons. First, a number of studies and reviews have provided evidence of the usefulness of this model or components of it for understanding how teams develop (e.g., team development following a linear progression) (e.g., Chang, et al., 2003; Chang, et al., 2006; Hingst & Lowe, 2008; Largent & Lüer, 2010) in diverse settings (e.g., call centers and student programming teams). A second, and more important, reason for adopting Tuckman and Jensen’s model is its simplicity (Bonebright, 2010), in contrast to the complexity of models that have followed it (Worzel, 1994). This principle that Tuckman and Jensen’s model follows is known as the rule of simplicity or economy (Quigley, 1979).

Parsimony, or the rule of simplicity, calls for statements comprising scientific theories to be capable of adequately explaining existing observations, while inferring the most simple of relationships and making the smallest number of assumptions (Quigley, 1979). Following the rule of simplicity helps to ensure that statements proposed in theories can be subjected to attempts to falsify them (Quigley, 1979). Modern science has found it easier to assume things are the same rather than assuming they are different, given the impossible task of proving a general negative proposition. A complex theory is less able to be subjected to empirical testing. In sum, these reasons argue for applying Tuckman and Jensen’s work to improve our understanding of how teams’ performance can be improved as they develop.

In Tuckman and Jensen’s model, groups or teams are seen as passing sequentially through five developmental stages. Initially, Tuckman proposed that this process consisted of four stages: forming, storming, norming and performing (Bonebright, 2010; Tuckman, 1965). Acknowledging the importance of the end of the team’s “life,” Tuckman and Jensen added a fifth stage known as adjourning to create an expanded model of group development (Bonebright, 2010; Tuckman & Jensen, 1977).

**Forming**

In the first stage, forming, the team comes together and begins to prepare for its future work. The team members are first introduced to their purpose and the goals they are to accomplish (Whichard & Kees, 2006). Team members are motivated and enthusiastic about working to achieve the desired results (Tuckman & Jensen, 1977; Weaver & Farrell, 1997; Whichard & Kees, 2006). However, during this...
stage, there are also a number of barriers to effective team member interactions, in the form of team members experiencing uncertainty about their purposes, feelings of anxiety, low trust of one another, and reluctance to share ideas and opinions (Tuckman & Jensen, 1977; Weaver & Farrell, 1997; Whichard & Kees, 2006). Despite this uncertainty, conflict is typically avoided by team members in this stage (Tuckman, 1965; Tuckman & Jensen, 1977).

If the team successfully completes the forming stage, it establishes some of the foundations on which later work will be produced. Foundations that are established include identification of resources for performing the tasks; understandings of and relationships with the team leader and other team members; initial rules for interactions; an initial understanding of the team’s duty; and results from testing interpersonal and task-related behaviors (Bonebright, 2010; Tuckman & Jensen, 1977; Weaver & Farrell, 1997; Whichard & Kees, 2006). After this accomplishment, Tuckman and Jensen note that teams described by their model move onto the next stage (Tuckman, 1965; Tuckman & Jensen, 1977).

Storming

The second stage, storming, is a time of conflict and disagreement for the team members (Tuckman, 1965). At this point the differences among team members in terms of ideas, priorities, and ways of working become apparent (Tuckman & Jensen, 1977). During this stage, there is conflict inside and outside of the team (Whichard & Kees, 2006). Rather than being united, team members become polarized around the aforementioned kinds of issues, competing to exercise influence over the direction of the team (Bonebright, 2010; Whichard & Kees, 2006). Team members are resistant to developing interpersonally (Bonebright, 2010; Whichard & Kees, 2006). Though painful for some team members, this conflict is necessary for the team members to develop their understanding of their roles and for the team to acquire the rules that will guide interactions and task-related work (Weaver & Farrell, 1997). Afterwards, teams that develop as posited by Tuckman and Jensen move onto the third stage.

Norming

During the third stage, known as norming, the team attains cohesion (Bonebright, 2010). In the norming stage, a shift takes place. The team moves from relating to another towards making decisions about the team’s goals, how to accomplish the team’s goals, attempting to resolve differences, negotiating with one another, avoiding conflicts over tasks, and refocusing on the team members’ common goals (Bonebright, 2010; Weaver & Farrell, 1997). In addition, role ambiguity experienced by members earlier is replaced by work to clarify roles and responsibilities of team members (Bonebright, 2010). Feeling committed to the team, the team members seek to maintain it (Tuckman, 1965). These changes clear the way for the team to move to the next stage in its development.

Performing

Comprised of interdependent members, the team is committed to and becomes effective at problem solving during the performing stage (Tuckman & Jensen 1977; Whichard & Kees, 2006). At this stage, the team members have reached a consensus about how they should work together and begin to channel their energies towards achieving their goals with an intensive focus (Bonebright, 2010; Tuckman & Jensen, 1977). In addition, though conflicts experienced in earlier stages may still occur, they are addressed in a productive manner (Whichard & Kees, 2006). Lastly, the team performs in a consistent fashion and its members tend to be highly satisfied (Tuckman & Jensen, 1977; Whichard & Kees, 2006). At this point, what lies ahead for the team is the team’s end.

Adjourning

The final stage, adjourning, emphasizes the end of the team. The team shifts its emphasis away from performance and focuses on finishing its tasks (Tuckman & Jensen, 1977). Team members may experience both joy stemming from their accomplishments and sadness about the end and separation from one another (Daft & Marcic, 2009). With an understanding of these five stages of team development, we turn next to uniting this view with Drucker’s management by objectives.
TEAM MANAGEMENT BY OBJECTIVES FOR TEAM DEVELOPMENT

As suggested earlier, there is a complementarity between the concepts of management by objectives and the view of team or group development proposed by Tuckman and Jensen. This complementarity can be seen when Drucker (1954) asked the question: “What should the objectives of a manager be?” He argued from the “big boss” down that objectives need to be clearly spelled out:

These objectives should lay out what performance the man’s own managerial unit is supposed to produce. They should lay out what contribution he and his unit are expected to make to help other units obtain their objectives. Finally, they should spell out what contribution the manager can expect from other units toward the attainment of his own objectives. Right from the start, in other words, emphasis should be on teamwork and team results. (p. 126)

Drawing upon this emphasis on fostering improved performance through teamwork, we argue that management by objectives can be usefully linked to the stages of team development proffered by Tuckman and Jensen. More specifically, team performance can be improved through the manager’s selective involvement in the development of the team at each of its stages, guided by the principles comprising management by objectives. Given its focus on team management, we call this concept team management by objectives (or TMBO) and illustrate its application to team development with the model shown in Figure 1. The colors used in Figure 1, and described below, are meaningful. The changing colors are symbolic (like traffic signals) of a team’s movement forward as it develops sequentially.

Forming Stage: Assign the Right People to the Right Team

As shown in the TMBO model in Figure 1, a key responsibility of the manager in the forming stage is to ensure that the right people are assigned to the team. Who are the right people? A recent literature review on virtual teams (Hertel, et al., 2005) suggests that teams (both conventional and virtual) should be comprised of members with expertise (e.g., skills in sales) particular to the work of the team. Of course, a particular advantage of virtual teams is that they enable people with appropriate skills in widely different locations to be brought together (Hertel, et al., 2005), but the virtual nature of these teams does not appear to diminish the importance of specific skills for conventional teams as well.

In addition, team members should also possess more general skills. Examples of these skills include resolving conflicts, solving problems, communicating, making decisions, setting goals, planning, and coordinating tasks (e.g., Gilley & Gilley, 2007; Spiegel & Torres, 1994; Stevens & Campion, 1999; Sundstrom, De Meuse, & Futrell, 1990). Additionally, diversity (e.g., in terms of team members’ approaches to the work of the team) can be beneficial for team performance (Bolton & Bolton, 2009; Bowers, Pharmer, & Salas, 2000; Gilley & Gilley, 2007), particularly for tasks with certain characteristics (e.g., tasks that are poorly-defined).

In business, people still use the cliché “time is money.” What they mean by this is that all resources (material, financial, human, and information) must be used efficiently (i.e., a dollar in expenses should generate more than a dollar in revenues). Given guidance such as that provided by the researchers above (e.g., Gilley & Gilley, 2007), it is critical for the manager to ensure that the people with the mix of specific and general skills are assigned to the team that can benefit from their assignment. Thus, it is important for the manager to examine job descriptions and solicit the opinions of local experts in the required areas that the manager believes will be required of the work. In addition, it is important for the manager to encourage team members to respect each other’s credentials. Thus, by ensuring that appropriate people are made a part of the team, the manager can help the team navigate the forming stage successfully and move onto the next stage. For the team members, this means taking no immediate action, since they are getting to know each other and sorting things out in this early stage. This transition from forming to the next stage, storming, is represented by the red arrow in Figure 1.
Storming Stage: Mitigate by Anticipating Unforeseen Events that Lead to Conflict

At this stage, the manager can help the team to successfully pass through the storming stage by anticipating unforeseen events that can lead to conflict. As noted previously, seeds for these conflicts can take the form of differences in priorities, ideas, and ways of working (e.g., Tuckman & Jensen, 1977), which cannot necessarily all be adopted by the team. Events may occur that can cause conflict to arise (e.g., an event that calls a team member’s beliefs into question). The manager must be watchful for such events, while being mindful that some conflict can be healthy. Indeed, the manager should also encourage the team to take a productive approach to differences (e.g., see the differences as strengths of the team), so as to help the conflict to be constructive (e.g., Gilley & Gilley, 2007). In Figure 1, the yellow arrow moving from the storming to the norming stage advises the team and its leader to move slowly and with caution. Conflicts are brewing and hostilities will arise, but this is also a time for having hope. Unproductive conflicts can be avoided and constructive conflict can be encouraged.

Norming Stage: Work with Team Members to Clarify Goals in Writing

In the norming stage, the manager can foster the team’s development by revisiting its initial goals. Team performance can be improved when the team has clear goals, as this goal characteristic makes it possible for the team members to focus their efforts (Anderson & West, 1998; Hackman, 2002).
Team performance can be enhanced with goals that are not only specific, but also challenging (e.g., Wegge, et al., 2009). As noted by Drucker, team members should participate in this process of clarifying the goals to enhance their commitment towards the goals (Drucker, 1954). Furthermore, participation in clarifying the goals can enhance cohesion of and identification with the group (e.g., Wegge, et al., 2009). Thus, at this stage, a key task of the manager is, together with the team members, to clearly define in writing the formal goals the team will pursue. In Figure 1, the green arrow marks the transition from the norming stage to the performing stage: routines have become normalized and the team’s goals have been clearly set by the manager and team members.

**Performing Stage: Monitor Team Goals Regularly and Provide Feedback**

In the performing stage, the manager can assure that the team performs effectively by monitoring the assigned objectives regularly and by providing feedback. In order for the team to be effective, feedback provided to team members should be concrete so that it can be acted upon, as well as being provided frequently and in a timely fashion (Hertel, et al., 2005). This feedback is important because it enables workers, and by extension, team members to engage in self-control (Drucker, 1954). Such self-control is more effective in terms of ensuring objectives are met than control exercised over the worker by the manager (Drucker, 1954). These actions by manager and team members contribute to the team moving full speed ahead towards achieving its collective goals as a problem-solving unit that makes efficient use of the resources of its component members. The blue arrow indicates the transition that the team makes following this stage: to adjourning and success for the team.

**Adjourning Stage: Team Success**

In this final stage, the team that the manager has been directing and nurturing is finishing its work and dealing with the implications of the end. As noted previously, the team members can expect to experience both joy stemming from their success (indicated by the gold circle in Figure 1) as a team, and the pain stemming from the coming end to working together (Daft & Marcic, 2009). What remains at this point for the manager to do is to dissolve the team whose development he has shepherded. As this point, we turn our discussion to the limitations of the model we have presented here.

**LIMITATIONS**

This paper has a number of limitations, but it also brings opportunities for further development in the future. First, as noted earlier, the model of group (team) development proposed by Tuckman (1965), and further developed by Tuckman and Jensen (1977), applies only to a subset of teams: those that develop sequentially. For teams that do not follow this development path, the guidance provided in this paper may be of lesser value. It could be an interesting and valuable next step to adapt management by objectives to more complex views of team development in the future. An additional limitation of this model is that it has not yet been subjected to empirical testing. A step we plan to take is to derive hypotheses from the model and test them in a future study. The results of this future study should offer further insights about team development and performance, based on the foundation we have established here.

**IMPLICATIONS**

We now highlight a number of implications for academics and managers. We have shown that it is possible to develop a deeper understanding of an issue by appropriately linking two theoretical perspectives. In this case, we have linked management by objectives and Tuckman and Jensen’s model of how teams develop. Based upon a search of multiple research databases (including Psychological and Communication Abstracts and Business Source Premier), it appears that no research has yet combined management by objectives with the stages of team development to develop propositions with implications for researchers and managers. With these complementary perspectives united, we have been able to derive
a number of potentially-valuable propositions about team development seen from the perspective of management by objectives.

In so doing, we have laid the groundwork for future empirical research to test and, perhaps, build upon our model. These methods can include (but are certainly not strictly governed by) experimental 2x2 designs or 3x2 designs with control groups or, even by using linear multiple regression techniques to investigate the main effects. By imposing these TMBO standards on teams as they develop whilst controlling for threats to internal and external validity, researchers can confirm or disconfirm the strengths of the new model.

Our work also has value for managers, especially those leading or seeking to lead teams. First, our work reminds managers that while older concepts can be and are valuable by themselves; these perspectives can also be combined to provide additional insights about management topics. Second, we provide managers with guidance on how to enhance the performance of teams that they lead by intervening at each stage in the team’s life. With the specific guidance that we have presented in the previous section, managers can approach team leadership with a potentially more effective method for encouraging team performance.

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