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Does team stability mediate the relationship between leadership and team learning? An empirical study among Dutch project teams

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Abstract

An exploratory field study was conducted among 30 project teams in the sectors of building and utilities, engineering and construction, infrastructure, and area decontamination and development in the Netherlands. It examined the influence of leadership on team learning behaviors and included team stability as a potential mediator, all analyzed at the team level using structural equation modeling. Results indicated that both person-oriented and task-oriented leadership behaviors were directly and positively related to team learning. Team stability did not mediate the relationship between leadership and team learning; however, a strong direct relationship between team stability and team learning was found. These findings have implications for interventions by all stakeholders of project teams (i.e., team members, project managers, and supervisors) aimed at increasing team learning. Suggestions are presented for leadership practices that stimulate project team learning behaviors.

Keywords: Leadership; Team stability; Team learning behaviors; Project teams

1. Introduction

Many knowledge-intensive work settings are characterized by overload, ambiguity, and politics (e.g., Savelsbergh et al., 2012). Highly specialized professionals, often drawn from different functional disciplines or departments, are brought together in temporary teams and contribute their expertise to a unique achievement, for instance, establishing an oil refinery in a place where land is to be claimed from the sea. These project teams face a multitude of problems and possible solutions. There is no single best way of knowing which problems and solutions to select; therefore, multiple stakeholders need to interact with one another continually (Alvesson, 2004).

Teamwork in these kinds of project teams consists primarily of gathering information, know-how, and feedback, through interpersonal exchanges within the team and across its borders, resulting in new knowledge presented to colleagues and/or clients (cf. Turner, 1999). The value of the team approach lies, among others, in the cross-functionality of its members, who provide the opportunity for timely integration of critical information, not only from their functional background but also from various external personal networks. To translate the diversity of viewpoints into project success, team members must adopt an inquiry orientation in which they mutually explain their positions (Edmondson and Nembhard, 2009; Edmondson and Smith, 2006). Hence they gain a better understanding of the whole project by viewing it through alternative eyes (Brown and Eisenhardt, 1995).

The importance of interpersonal exchanges in these project teams points to the value of team learning behaviors (Edmondson,

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1999) aimed at obtaining a thorough insight into the whole project and at the integration of different viewpoints, through continuous collective action and reflection. Team members need to get to know each other as individuals, and as a team, and ought to design work routines that fit their goals, circumstances and personalities. Continuous learning, in terms of both project content and interpersonal dynamics, is a key driver of the team's ability to remain adaptive and flexible. This is especially the case for project teams, which often have a unique focus and strong urgency. Project teams working in fluid, knowledge- intensive organizations are bound to encounter unexpected and ill-defined problems, for which there are no well-known solutions available.

Winter et al. (2006) stress the importance of the ability to learn and the ability to share what has been learned as one of the five major directions for future research in project management. Although knowledge sharing, which as a concept is comparable to the explorative part of team learning, has frequently been studied previously in projects (Hasan, 2014; Park and Lee, 2014), only few studies (cf. Söderlund et al., 2008) on the concept of team learning behaviors in project teams are available. Especially, empirical studies in real-life project teams are lacking. With the present study, our focus is on those antecedents of team learning that can be influenced by the project team itself. Specifically, besides team leadership, we are interested in the influence of team stability, referring to the extent of team membership changes in the team. This is a major issue as expert-driven team membership changes are assumed to increase team instability in project teams. Obviously, the degree to which team members have a history of working together in the past influences the characteristics of the team, and thereafter its potential. There is a great deal of earlier scholarly work that supports the notion that new teams that are at earlier stages of development are fundamentally different from teams that are very mature or at later stages of working together (see Hollenbeck et al., 2012 for more detailed information). Moreover, past research has indicated that performance, learning, and cohesiveness grow as a result of having gone through a large number of performance/feedback cycles over time (Marks et al., 2001).

Previous research has shown that team learning is related to various leadership behaviors, such as transformational leadership (Schippers et al., 2003), empowering team leadership (Burke et al., 2006; Srivastava et al., 2006), and team leader coaching (Edmondson, 2003). Based on these results, it can be argued that the project manager, as the leader of a project team, has a prominent role in stimulating team learning behaviors, involving members in decision-making, clarifying team goals, providing bridges to outside parties via the leader's status in the organization (Sarin and McDermott, 2003), and challenging and facilitating the processes of dialog and experimentation by de-emphasizing power differences and by facilitating a psychologically safe context (see e.g., Burke et al., 2006; Edmondson, 1999, 2003).

Notwithstanding the predictive value of leadership style for team learning, it is still unclear *how* the project manager can affect team learning. As we know from earlier studies (e.g., Edmondson, 1999), a shared sense of psychological safety is needed for team learning behaviors (such as, experimenting, sharing mistakes, and exploring new situations) to emerge. However, the development of psychological safety in a team takes time, as team members need to get acquainted with each other's norms and values to be able to predict one another's behaviors, and to feel comfortable to speak out about interpersonally difficult observations and questions (Edmondson, 2003; Edmondson et al., 2001). The interpersonal risks faced by new team members wishing to speak out may be intensified by power differences based on team tenure (Forsyth, 2009). Moreover, team members need shared norms and values, supported by clear and internalized rules about "how they play the game together" (Edmondson et al., 2007). In order to develop healthy team processes, such as learning, communication and coordination (Edmondson et al., 2007), team members ought to be kept together.

While there is empirical evidence available about the influence of the antecedents mentioned above in the context of project teams, the possible impact of team stability remains largely unexplored as yet. Nevertheless, the many membership changes taking place in project teams could have a detrimental effect on their ability to learn. The aim of this study is to investigate to what extent project managers can affect team stability in order to promote team learning behaviors in their project teams. Our mediation model is aimed at clarifying the predictive validity of a number of factors influencing team learning behaviors and at providing recommendations for effective managerial interventions.

2. Theory

2.1. Learning in teams

A *team* can be defined as "a distinguishable set of two or more people who are assigned specific roles or functions to perform dynamically, interdependently, and adaptively towards a common and valued goal/object/mission, who have each been assigned specific roles or functions to perform, and who have a limited life-span of membership" (Salas et al., 1992, p. 126). In particular, *project teams* are characterized by a unique goal and a planned start and ending (Cohen and Bailey, 1997; Turner, 1999). Turner (1999) determines three levels of project teams: the primary, secondary, and tertiary groups. The primary group or task force comprises the set of people who work face to face and who know everyone else in the group. They are the immediate team members. The secondary group consists of people who contribute to the work of the primary group but are not part of it. The tertiary group comprises those who are affected by the work of the project (e.g., professional bodies and clients). In this study, the concept of project team refers to the primary group. For the most part, project team tasks are non-repetitive in nature and involve considerable application of knowledge, judgment, and expertise. Members are drawn from different disciplines and functional units so that specialized expertise can be applied to the project at hand. They may work full-time on the project for its duration or be assigned part-time working on different projects simultaneously. When a project is completed, members either return to their functional units or move on to the next project (Cohen and Bailey, 1997). Multiple activities are done simultaneously, rather than sequentially, to save time (Brown and Eisenhardt, 1995).