Chapter 16
Bridging Boundaries: Middle Managers’ Pedagogic Interventions as Technology Leaders

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ABSTRACT

The aim of this chapter is to describe interventions that middle managers make when they strive, as technology leaders, to bridge intra-organizational boundaries in order to support new agile ways of working. Another aim is to discuss how these interventions may be understood as pedagogic interventions. By using qualitative methods in a case study approach concerning the software communication industry, the findings reveal interventions that focused on alignment through collaboration, interdependency, flexibility, and communication. These kinds of interventions are regarded here as an example of pedagogic managerial leadership. Managers take on development and learning as main collective work tasks because they want to influence knowledge creation and are aware of the learning dimension of their work tasks.

INTRODUCTION

Middle managers intervene on a daily basis in the workplace as an important part of their work tasks (Holmberg & Tyrstrup, 2010). Such interventions also occur when managers, as technology leaders, strive to bridge intra-organizational boundaries in order to support new agile ways of working in the software development industry.

The story in this chapter is told from the perspective of middle managers in a research and development unit of 1200 people. The business was successful in delivering products on time and with the requisite technological quality. However, a highly competitive market situation drove the unit to align with new agile and cost-effective ways of working. Such ways of working are part of the software development industry.
Bridging Boundaries (Leavitt Cohn, Elliott Sim, & Lee, 2009). The software communication industry as a whole has turned to work methods such as cross functional teams, scrum, streamline, and other agile ways of working in order to reduce time to market by dramatically shortening lead times in research and product development. A reason for this is to increase the possibility of using competence in a more flexible and just-in-time manner. The idea is also to increase commitment when distributing responsibility to teams that take on development tasks from start to finish.

As technology leaders, the middle managers in the studied organization were responsible for developing the organization and the skills of the organizational members when agile ways of working were to be enforced. The unit consisted of several sub-units that were independent and self-governing to a certain degree. At the time of the study, this independence was regarded as problematic in the organization, because it had resulted in complications of the products developed on the solution and network levels, especially when the products were to be integrated prior to delivery to the customer. The independence was also considered problematic because the new agile ways of working required intra-organizational flexibility and reusing technological solutions. Thus, more interdependence was now regarded as essential in achieving future success. The managers talked about their leadership tasks in terms of being a struggle to align across the sub-unit boundaries in a common effort. This struggle entailed both the forming of a new intra-unit structure, and a shift to agile ways of working on a larger scale. New alignment ways of working had to be developed, which was largely a task for the middle managers to achieve. According to the managers, the organizational members, who mostly consisted of educated and experienced engineers, had to move in the direction of broadened technology competence and cross-functional teamwork. The engineers also had to decouple themselves from the specific product for which they had been responsible and to which they had been connected.

In organizations where middle managers become involved in higher-level processes of decision-making, conditions are afforded that may guide the managers’ own understanding and how they act when taking the issues further down the hierarchy. Thus, it becomes relevant to comprehend how middle managers, as responsible technology leaders, reason and intervene in their organizations when affecting strategic changes in work activities. The middle managers in the studied organization expressed a high degree of commitment to, and responsibility for, the realization of new ways of working that were aimed at enhancing both internal technology use and product development.

In several respects, the middle managers are technology leaders in this specific line of business. They are practicing leadership in a technology industry. According to a senior manager, the organization strives to be at the technological forefront and being a technology leader is to support this aspiration, he says. In addition, technology leadership is integrated into their everyday leadership roles. Hardware and software are the tools used for everyday work tasks; software for communication purposes is the end product. When management or managers are mentioned in the following sections, the reference is made to this work-integrated technology leadership.

The contribution of managers to the facilitation of interaction and learning processes has not been very developed when it comes to empirically-based contributions within organizational science and educational research (Ellinger & Bostrom, 2002; Ellinger, Ellinger, Bachrach, Wang, & Emladag, 2011; Møller, 2007). This chapter addresses this knowledge gap by focusing upon the interventions of middle managers as pedagogic interventions. The concept pedagogic is defined here as enhancing learning possibilities. The objectives of the chapter are two-fold: first, to describe interventions that middle managers make when striving to move people to bridge intra-organizational boundaries in new agile ways of working, and second, to discuss how these
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