Chapter XII

Exercising Space: Facilitating Learning Through Experimentation

Abstract

This chapter reports results of an empirical examination of the facilitating role of experimentation in enhancing individual knowledge and performance in decision making. A laboratory experiment was conducted using 14 graduate students as voluntary subjects. Performance of actual subjects was compared with that of their nominal naive and optimal counterparts. Results indicate that the opportunity for independent experimentation contributed to individual knowledge enhancement and led to improved decision performance. Subjects performed better than notional naive subjects who applied random walk decision strategy. However, the results indicate room for further improvement. Subjects failed to reach performance of notional optimal counterparts who used linear decision strategy. The results also suggest the need for a holistic approach to managing knowledge by combining and integrating various initiatives to create even higher levels of knowledge and performance.
Introduction

In Chapter III of this book, we introduced the concept of knowledge space based on Nonaka and Konno’s (1998) original concept of “ba.” We presented major types of knowledge spaces and described their characteristics. We also emphasized that different types of knowledge spaces are suited to different types of knowledge processes. In general, these spaces offer platforms for specific steps in the knowledge spiral process that speed up knowledge development. The awareness of the different characteristics of knowledge spaces can facilitate successful support of knowledge processes. Eventually, the knowledge generated within each individual space forms a part of the shared knowledge base of organizations.

Knowledge spaces can be established by systematic organizational effort. In general, knowledge space is where management intervenes in the process of knowledge creation through the special design. For example, some organizations employ “teams” as a platform to support knowledge creation, some create a special “division” as a space for cross-functional knowledge creation, others ground knowledge creation in the company’s “culture” and “structure.” While organizationally different, all these initiatives are consistent with the theory of knowledge creation in that they emphasise the knowledge space as the enabler of this creation process.

The goal of this chapter is to address one type of knowledge space, namely “exercising space,” as a platform for enhancing individual learning in the context of decision making. According to Nonaka and Konno (1998), exercising space supports the internalisation process from the knowledge development cycle. It facilitates the conversion of explicit knowledge to tacit knowledge. It consists primarily of continued exercises that stress certain patterns and working out of such patterns. Learning by continuous self-refinement and active participation is stressed. Knowledge is continuously enhanced by exercise in either real-life situations or simulated applications.

Experiential Learning

The following review presents and discusses relevant past theoretical and empirical literature on learning, and develops specific research questions of interest for the present study. In a recent study, Nissen (2006) defines learning as knowledge in motion. He uses this term to characterize the creation or acquisition of new knowledge. However, he warns that “newness” of knowledge should be understood relative to the acquirer and the context. For example, students may acquire knowledge new to them from their class instructor who already knows the subject matter.