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SPEED, DEPTH AND BREADTH: ASSESSING LEARNING IN LEARNING ORGANIZATIONS

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ABSTRACT

This paper presents a conceptual model for assessing the effectiveness of strategic learning in a learning organization. Three dimensions of strategic learning--speed, depth, and breadth--are proposed as criteria for judging the relative effectiveness of learning in a learning organization.

INTRODUCTION

Over recent decades, business environments have become increasingly turbulent and threatening. Today, businesses are experiencing economic, technological, social, and competitive change that often strike without warning and threaten their very survival. In response too increasingly uncertain business conditions, many leading organizations are becoming learning organizations. They are actively engaged in efforts to learn how to change faster than their environments and their competition.

What is a learning organization? In *The Fifth Discipline,* Peter Senge offers the following definition: learning organizations are firms "where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning how to learn together" (Senge, 1990, p. 1). More recently, Garvin (1993) has defined the learning organization as"... an organization skilled at creating, acquiring, and transferring knowledge, and at modifying its behavior to reflect new knowledge and insights." (Garvin, p. 80).

How do organizations learn? Organizations learn much the same way that people learn from personal experience. Learning organizations recognize that successful strategic change is best approached as a cycle of learning. Since the time of John Dewey, learning by doing has been represented as a cyclical process. David Kolb (1984) represents learning as a four-stage cycle of concrete experience, reflective observation, abstract conceptualization, and active experimentation. In Figure 1, a slightly modified model of an

FIGURE 1
Experiential Learning Cycle

experiential learning cycle depicts the back and forth movement from thought, to action, to reflection. Organizations learn by developing plans, implementing plans, and reflecting and adjusting course as problems are discovered and overcome. Each iteration of this cycle (planning--implementation--reflection) is an opportunity for learning. The effectiveness of a learning organization, of its journey of learning, may be delineated by three separate factors--the speed of learning the depth of learning, and the breadth of learning. This paper will explore each of these three dimensions of learning.

DIMENSIONS OF STRATEGIC LEARNING

Speed

The speed of learning--how fast organizations are able to rotate around the learning cycle--is a key factor in strategic learning. Learning organizations seek to increase the speed at which learning happens by reducing the cycle time of each learning iteration. Since each iteration is an opportunity for learning, by reducing the time between iterations the organization increases its learning opportunities (see Figure 2). Simply stated, if a firm can get around the circle faster, it will have increased its chances to learn.

The cycle times of strategic learning have been fairly lengthy in most organizations. Traditionally, iterations of learning cycles are often limited to once-a-year reviews. At the start of the year, strategic plans are developed, often with three to five-year planning horizons. Throughout the course of the year, these plans are implemented. A year later, the plans are reexamined and updated, with the planning horizon extended out one more year. During the year, there may be periodic reviews of the plans, but these reviews often do not include a serious reflection upon the validity of the plans themselves. Any serious questioning of original assumptions is avoided. Instead, these reviews are usually limited to working out the details of the implementation of the plans and enforcing compliance to executing the plans as originally developed. The only time that plans are seriously reviewed and questioned during the year is when major problems or crises arise. In contrast, learning organizations seek to accelerate the cycle times of strategic learning. To do so, they are action-oriented in all three phases of the learning cycle: planning, implementation, and reflection. Not waiting for annual planning retreats or crises to compel reevaluation, they make planning--implementation--reflection an ongoing process throughout the year. Plans are always open and subject to review. Implementation is focused on quick action to provide the information needed to clarify strategic direction. Reflection is built into all strategic changes from the beginning, and it is recognized as being as important as planning and implementation to successful strategic learning.

Depth

The depth of learning--how deeply organizations are able to learn at the end of each rotation through the learning cycle (See Figure 3). The depth of questioning that occurs as the firm reflects upon its actions and modifies its original plans impacts the effectiveness of strategic learning. Fast cycle time does not guarantee learning. Just because the three-phase cycle of planning--implementation--reflection is completed does not necessarily guarantee that learning will occur. Nor does it indicate how deeply organizations are able to learn. The depth of questioning determines the level of learning that occurs during each iteration.

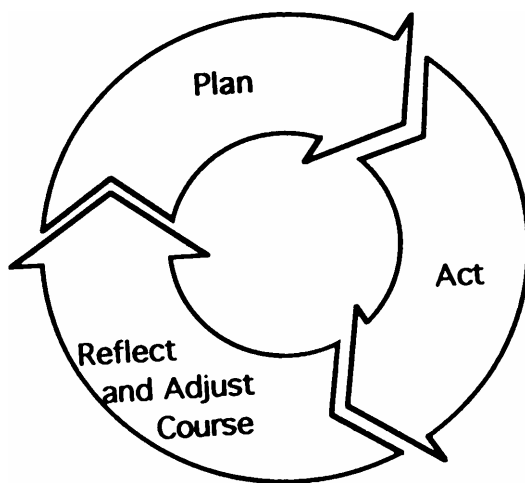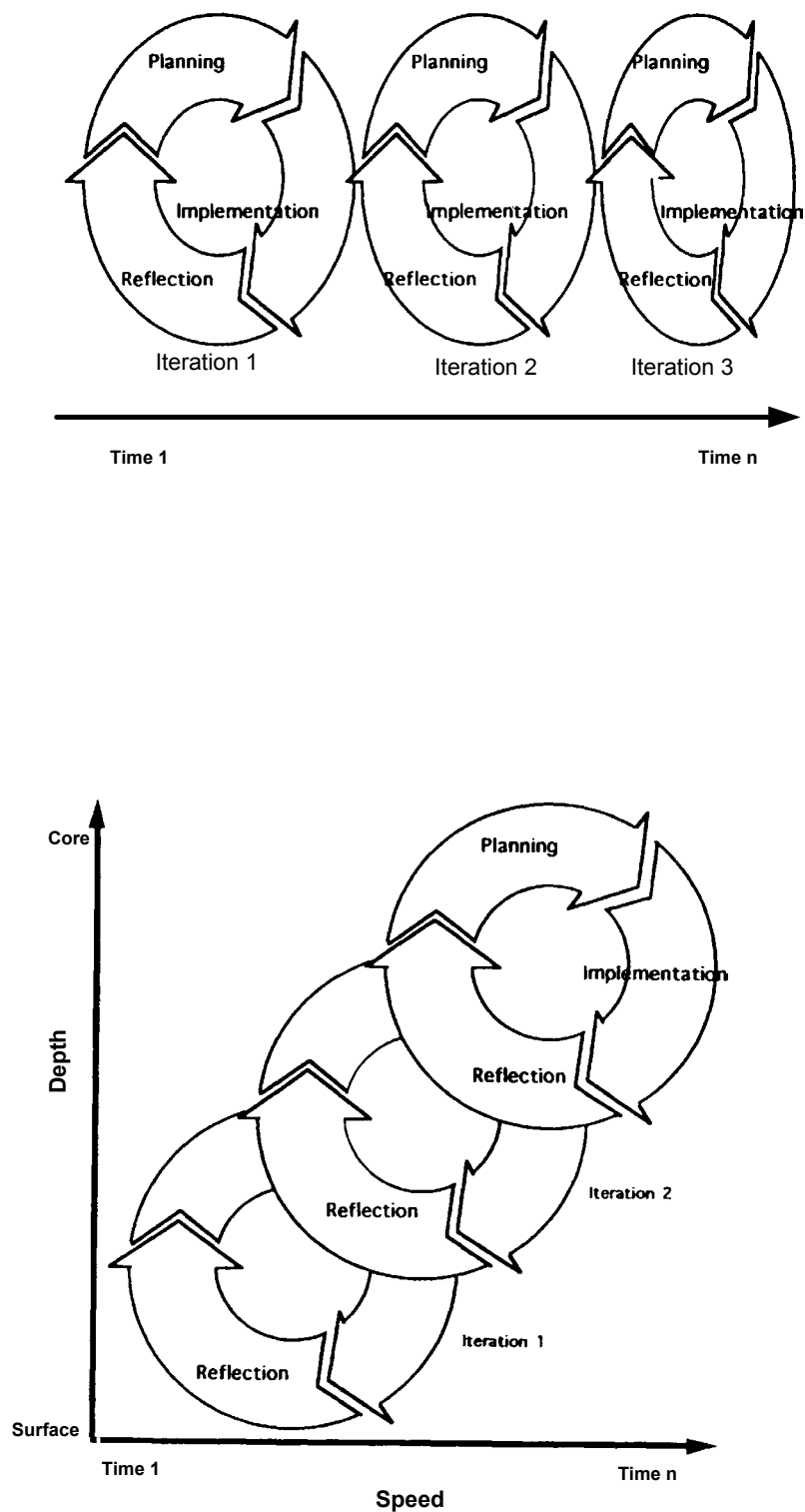FIGURE 2
Speed of Strategic Learning

Figure 4
Breadth of Strategic Learning
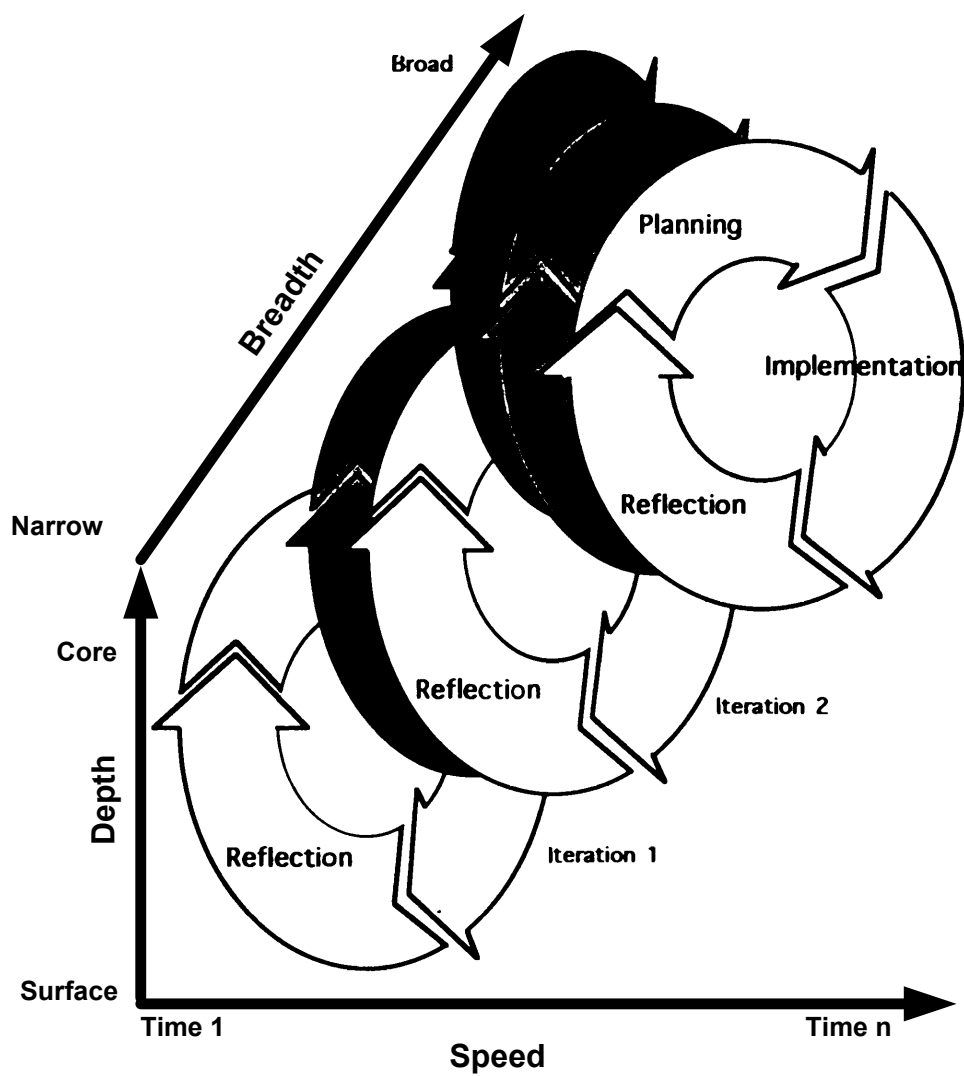
Three Levels of organization learning have been proposed by Argyris and Schon (1978):

Level 1: Single Loop Learning

Level 2: Double Loop Learning

Level 3: Deutero Learning

What differentiates these three levels of learning is the quality of questioning that occurs during the reflection phase. At the first level, questioning is limited to fine-tuning the original plans in response to the impediments being encountered in making the plans happen. As a result, first level learning deals with fixing the immediate problems at hand; it may not confront the root cause issues that may be contributing to the problems. At the second level, deeper, more probing questions are raised regarding how current difficulties may be symptomatic of pervasive, systemic issues such as organization norms, management styles, information system data, and operating procedures. As a result of this deeper questioning, organizations have the opportunity to learn about themselves as complex systems. Routine problems when understood as symptoms of deeper causal factors can provide the basis for truly strategic learning. At the third level, questions are raised about the learning process itself. It is the organization's ability to learn how to learn that provides for the deepest form of organization learning since it increases the core capacity of the firm to learn regardless of the strategic issues at hand.

To increase the depth of learning, organizations must encourage and value questioning. Managers often think that it is their responsibility to know--to have answers--to know what to do, how to do it, and how to measure that it has been done. Instead, managers in learning organizations need to develop their tolerance for ambiguity and allow themselves the freedom to not have all the answers and to learn from their mistakes.

Learning organizations recognize the importance of questioning the rules of the game, even when the rules seem to work. Taking the spirit of continuous improvement and transferring it to the broadest, most strategic issues facing the organization, learning organizations acknowledge that "we can always get better." In stable, simple environments, companies can develop game plans and stick to them, and feel fairly secure that their old answers are still good answers. But, since, for most firms today, playing fields are constantly shifting, therefore, learning organizations continually seek to ask the toughest questions about the rules of the game. It is the freedom to question the firm's most basic assumptions that promotes the deepest, most strategic learning.

Breadth

The breadth of learning is determined by how well organizations are able to transfer the new insights and knowledge derived from each learning cycle to other issues and areas of their firms (See Figure 4). At the conclusion of each iteration of the strategic learning cycle, certain insights are derived that may have application to other issues and to other parts of the organization. The breadth of learning is the extent to which learning is successfully integrated throughout the organization.

The transfer and dissemination of knowledge across a highly differentiated and often conflict-ridden organization challenges firms to learn by extrapolation and collaboration. Learning organizations are effective at taking knowledge gained in one area and utilizing it in other parts of the organization facing similar challenges. For instance, if one division of a corporation gains insight into a specific international market, is that knowledge transferred to other divisions also seeking to enter or expand that market? Or if one part of the company is struggling to conquer some particularly stubborn technological roadblock, does it look to the collective knowledge of the entire firm, including its suppliers and customers to see what has been learned from previous experience?

There is also another aspect to broadening strategic learning--taking the insights derived from experience with a specific problem and applying the lessons learned from that experience to dissimilar issues. Why would the learning derived from one problem apply to another? Because organizations are complex interrelated systems. The same underlying issue that is causing the company to fail in introducing a new product may be equally relevant to improving customer service or introducing a new technology.

Learning can be broadened by stimulating open and collaborative exchanges of ideas between individuals, teams and divisions, and even with suppliers, customers, and competitors. The importance of taking the lessons learned in one area and applying them to another area or another issue becomes evident when we view organizations as open systems. Learning organizations add breadth to their learning by testing out ideas in new settings, thus providing the opportunity to clarify what they know and what they think they know. Applying knowledge to a broader, more diverse range of problems helps organizations to learn by leveraging old knowledge into new understandings.

CONCLUSION

While we have discussed each of the three dimensions of learning separately--speed, depth, and breadth--the three are not entirely discrete. The three dimensions are related to each other. Learning organizations, by increasing speed of their learning cycle iterations, increased depth. Increased depth leads to increased breadth. If there are more iterations of the learning cycle, it is more likely that the firm will realize the limitations of Level 1 solutions that only address the symptoms and not the underlying causes. As problems continue to persist from one iteration to the next, there is an enhanced likelihood that the firm will seek and appreciate deeper learnings, Level 2 and 3, that get below the surface, sounding out the underlying reasons for the difficulties. Moreover, as more profound earnings occur, the solutions will deal with the more systemic issues of the organization. Since systemic issues often have impact upon a wide range of organizational issues in varying parts of the firm, there is an increased likelihood that the new knowledge will more easily transfer to other issues or parts of the company.

Learning organizations seek to continuously enhance the speed, depth, and breadth of strategic learning. To promote speed, learning organizations are action-oriented when it comes to strategic change. To promote depth, learning organizations are characterized by the questioning of fundamental assumptions. And to promote breadth, learning organizations seek to integrate the learning that happens in one part of the organization with one issue and transfer those insights and lessons learned to other divisions and other problems.

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