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What Is Lattice-Works – the Learning and Development Model?

In business organizations we talk so much about human talent, human capital, human resources, enterprise learning and the old standby, training and development. New buzz words in the area of corporate learning and development are life-long learning and mastery. But what do life-long learning and mastery mean? And how do business people capture and manage something as nebulous sounding as life-long learning? How does an individual achieve a state as intangible as mastery?

Over 18 years ago, seeing the limited success of traditional leadership and management development in organizations and my own practice, I began to ask myself the following questions: How do people learn in organizations? How does individual development occur? What does personal mastery mean and how do we achieve it? With the advent of the concept of the learning organization, my investigation expanded to include organizational learning and communities of practice. My journey towards the development of the *Lattice-Works* model began in 1988.

THEORY

Starting with learning theory, I explored the behaviorist stimulus/response theories of Thorndike and Skinner and the internal maturation of thought of cognitivist's Piaget and Bruner. Having become an adult in the '60s, I was more aware of the humanist theories of Maslow and Rogers. Each theory school defines learning differently; much like the story of looking at the elephant from different angles, someone sees a long nose, another, a tree trunk leg and so on. The behaviorist school defines learning as a change in behavior, the cognitivist school as an internal mental

process and the humanist as a personal effort to fulfill potential. They are not inaccurate, just limited.

I had, however, grown disenchanted with the adult learning theories of Malcolm Knowles and the humanists regarding self-directed learning. The advent of coaching in business as a method of learning, I believe, evolved out of the failure of the self-directed and anti-teacher orientation of the humanistic school and the failure of the non-personalized traditional education of recitation script.

Each of the previously mentioned schools of learning had what I felt was a piece of the puzzle but only a piece. Yes, as human beings we respond to stimuli and our thinking does get more complex. We hope to achieve our potential in a more self-directed way. Nonetheless, what I hoped to find in my research was some idea, concept or theory that tied the pieces together. I was looking for the proverbial spark of life; the architecture of the transformational moment; the dynamic piece that occurs in building knowledge and makes change or action possible.

In the late 1980s I explored the development-on-the-job research from The Center for Creative Leadership and found it helpful for understanding the immediacy of learning and the role of developmental assignments. In the early 1990s I became aware of research at the University of New Mexico working with children of Hispanic ethnicity from tribal or village cultures in order to enable them to move into more abstract and conceptual thinking. The primary focus was on language and the learning of more abstract thinking within an apprenticeship type process. Intuitively, I felt this was a key concept to explore for adults. Faculty at UNM steered me toward Roland Tharp of

UC Santa Cruz. His book, *Rousing Minds to Life*, written about research done in K-12, was a link for me to a more comprehensive view of learning and the theories of the Neo-Vygotskians.

Lev Vygotsky, an educational psychologist like Piaget, was working at the same time as Piaget but has been relatively unknown in the West until recently. He did his research in Russia at a time when much that was going on in Russia was unknown in the West. His research did not disagree with Piaget on the internal workings of the mind. Instead, he focused on other aspects, primarily language and the social construction of learning. Vygotsky's key concept was something called the zone of proximal development. The zone is the area of our potential where we can develop but cannot do so without guidance or stimulus in some form. Given my disenchantment with self-directed learning, I wanted to explore his concepts fully.

Many current ideas and practices in adult learning have come from neo-Vygotskian research in the last 20 years. Jean Lave's and Etienne Wenger's ideas of situated learning and communities of practice came from neo-Vygotskian research at Xerox PARC. They were looking at more efficient and realistic ways to transfer knowledge in business. A community of practice is the label for any group of people involved in a specific practice and having a language specific to that practice. Banking is a community of practice as is teaching, medicine, politics, engineering and so on.

With more current neo-Vygotskian research and a compilation of 20 years of information from educational research at the School of Education at UC Santa Cruz, the CREDE center at UCSC came up with five principles of teaching/learning. Although, compiled from K-12 research, these principles are

fundamental to all successful teaching/learning endeavors. They are:

- Learning takes place best in joint productive activity with more skilled others ... that is, when experts and novices work together for a common product and goal.
- Learning takes place when there is competence in the language and literacy of instruction—values, culture, and cognitive growth come from the development of language and literacy.
- Teaching and curriculum needs to be contextualized in the experiences of (work), home and community—the process of instruction is a process of making meaning.
- Learning requires challenge toward cognitive complexity—that is, thinking and analysis, not repetitive drill or rote thinking.
- Learning takes place when engaged in dialogic conversation.

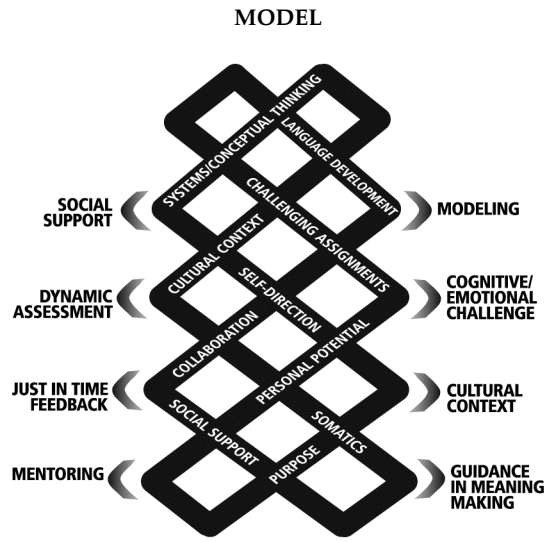
During this period of time, I became personally interested in the field of somatics—the mind body connection. Most literature on mastery comes from the general field of somatics—yoga asanas are somatic. Embodied leadership is somatic as are the psychological therapies of bioenergetics and somatic experiencing. Martial arts such as aikido and tai chi are central in the field. Practitioners in the area of somatics and leadership mastery say that understanding occurs in the mind and learning occurs in the body. Their definition of learning is that learning builds a capacity for action. The Society for Organizational Learning defines this mastery or mind/body integration as *presence*.

LEVERAGING DEVELOPMENT

If you looked at my research as a map, I went down many highways and byways in search of what seemed useful and often found what didn't. Three years ago I realized that in my quest for a total view of the elephant called development there was no hierarchical model. I had in fact been weaving a model. Currently, the academic field of education uses the term *scaffolding* to explain the building process involved in education. While scaffolding is a nice image, it seemed to me that it still was describing cognitive processes to the exclusion of other important elements. It certainly has the image of a fixed construction. As I concentrated on the idea of weaving as a dynamic process and network, the image of a lattice as opposed to a scaffold came to mind. Hence, the *Lattice-Works* model began to take shape.

One of the key ideas in the neo-Vygotskian view of learning, which comes originally from research on apprentice masters, is dynamic assessment. Dynamic assessment is the activity, in the moment, of a more expert person seeing and assessing where the leverage points in learning are for a less skilled person.

The *Lattice-Works* model is woven in such a way as to portray a process, a process that lends itself to dynamic assessment. Rather than steps, it should be seen as a network of states and processes. The process flows and weaves between internal and external. Facilitating learning from the external or the environment, as social support, guidance in meaning making, mentoring, modeling, challenge, assessment and accurate feedback just at the right time. While we have some choice or control in these activities, we have more personal choice in the internal processes.



The internal processes are:

- ❖ **Purpose** – Purpose can be perceived in two ways. One way is the understanding that development is goal or achievement oriented. The second way is that development is purposeful. It is a process of mission.
- ❖ **Personal Potential** – Personal potential recognizes that human beings are growing, learning beings. We are always in a state of becoming. Our potential as humans is open to life-long exploration.
- ❖ **Social Support** – Social support acknowledges that as humans we are social beings and that most of our learning takes place in social context. As such we need the support of others and to support others in order to learn, grow and reach potential.

- ❖ **Somatics** – Somatics defines the body as a functional, living whole rather than a mechanistic structure and does not split mind from body. It views the whole as a unified expression of all we think, feel, perceive and express. Those behaviors that we want to change and cannot are often the result of our somatic self. Changes only occur when we address them at the somatic level.
- ❖ **Collaboration** – Collaboration is included as a way to learn mutually. It can include both cooperation and a healthy competition. It is also a state of mind.
- ❖ **Self-direction** – Self-direction recognizes that to be a fully mature adult is to have responsibility for our behavior, actions, goals and direction. We have the ability to choose to learn, what to learn and from whom to learn.
- ❖ **Cultural Context** – Cultural context allows the inclusion of diversity in the social construction of knowledge. All communities have their own culture and language. Learning can only be explored within the context of culture. We embody our culture.
- ❖ **Challenging Assignments** – Accepting challenging assignments gives us a way to stretch our abilities. Those assignments usually stretch us cognitively or emotionally but they also sometimes stretch us physically.
- ❖ **Language Development** – Language is the basic component of mind and community. We personally think in language and

communicate with others in language. We make meaning through language and language patterns. To become central in a cultural community or community of practice is to fully understand and embody the language of that community.

- ❖ **Complex or Systems Thinking** – The evolution from tribal/social thinking to conceptual/ abstract thinking is one of the fundamental steps in adult development. Systems thinking and language development are component parts as is the ability to hold varying concepts and viewpoints.

THE USE OF THE MODEL IN DYNAMIC ASSESSMENT

I have been asked how to use the model and if there are questions associated with the concepts in it. Given the fluid nature of the concepts and the spirit of dynamic assessment, the questions are part of the moment and not discrete or concrete. However, when the model is kept in mind, it provides a tacit template for assessment.

Here are two examples of the use of the tacit model with an organization and in personal coaching:

- A mid-sized manufacturing company had been through two acquisitions of competitors in the past year and was concerned about leadership capacity to handle the increased workload. They thought they needed leadership and management development for employees who were technically competent but did not choose to be in management. Insisting that they had absolutely no issues around the diversity of

the workforce, they absolutely knew the problem was lack of management skills.

After some interviews, it was clear that the corporate and front office spoke English entirely, the manufacturing plant's day shift was totally Hispanic and spoke Spanish only. The night shift was Pilipino and spoke primarily Tagalog, and no one wanted to supervise or manage people who didn't speak their language. Once the language problem was solved with ESL classes, very competent people moved up into management.

- Very commonly, women entrepreneurs are high achievers who believe they need to do everything themselves. One coaching client knew she worked all the time and saw herself as an over-achiever. She gave lip service to needing to find better balance between work and life, thinking she just did not have the ability to build a satisfying personal life. She had given so much of her life to being such an achiever in business.

However, she was highly skilled at collaborating with her client companies and had many mutually beneficial working relationships. Her breakthrough came when she realized that collaboration was her own personal skill and didn't belong just to her work. She could use that skill in charity work she desired, in hobbies and her neighborhood.

CONCLUSION

There are many more views of learning than the ones mentioned here. Arguments will continue until the end of man about the relative importance of individual cognition or social support - and the role of language, emotion, body, mind and society in learning and development.

You will notice that this model does not mention content. The process exists whether the subject is airplane manufacturing, financial services, leadership, neurosurgery or any other body of knowledge or community of practice.

In answer to the questions in the first paragraph, from the standpoint of the *Lattice-Works* model, life-long learning is a dynamic process of cognitive refinement, social and/or organizational support, cultural recognition and embodied practice. Mastery is something achieved with the practice of the processes mentioned in the model.

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