

Value of Simulation Learning

 **BTS**
Catalysts for Profitability and Growth



*Value of simulation learning from the world of
research and academia*

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BTS & Discovery Learning

"Tell me, and I will forget. Show me, and I may remember. Involve me, and I will understand." – Confucius, 450 BC

Discovery Learning through Simulation

Based on these experts' findings, simulation is the ideal learning tool for business people:

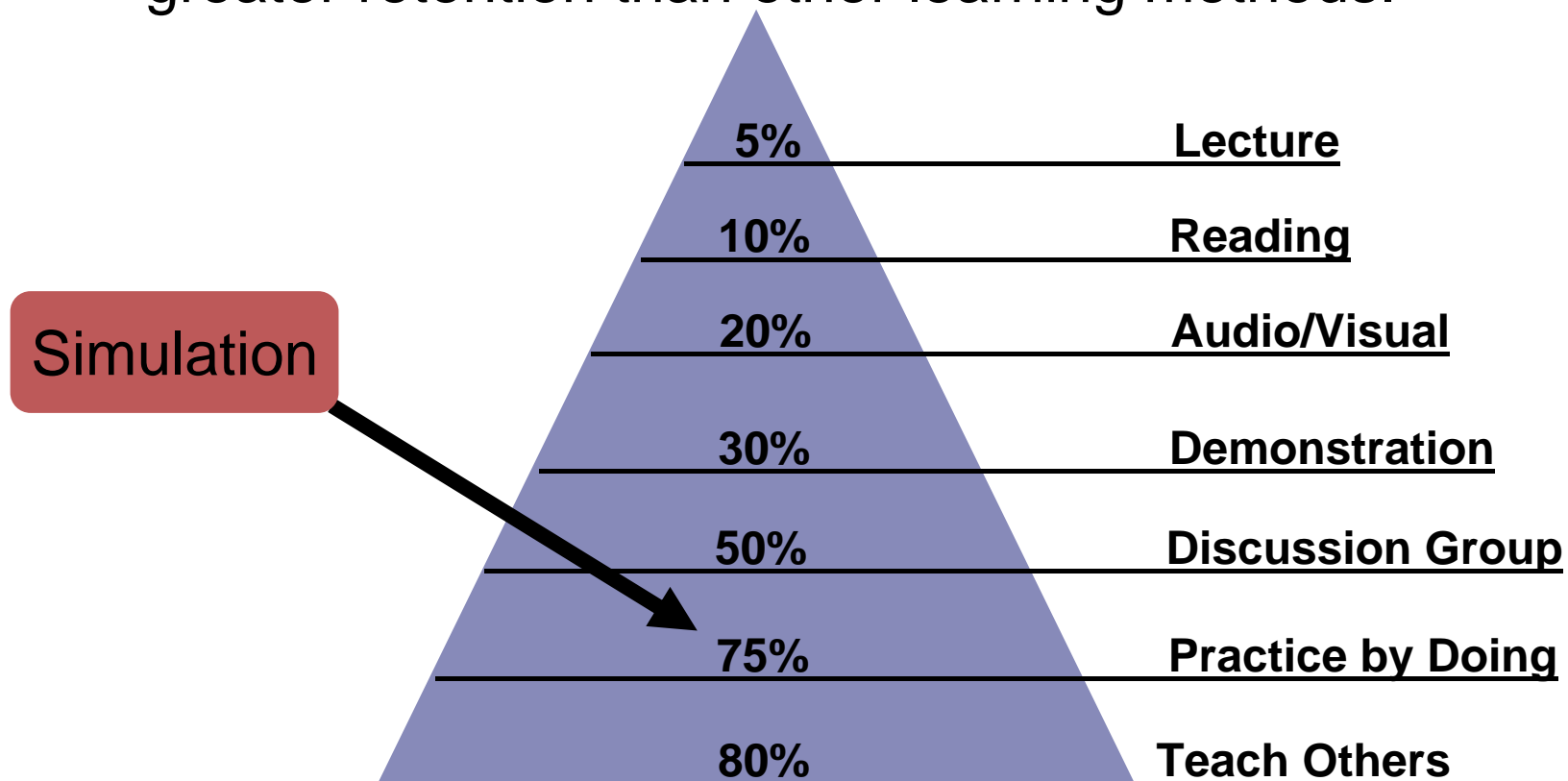
Malcolm Knowles states that adults learn best by active (as opposed to passive) experiences. Working to solve problems facilitates their learning (Knowles, 1996).

Roger Schank's theory entitled "Learning by Doing," states that skills are developed and information is obtained in practical contexts (Schank, 1999).

David Kolb, an advocate of Discovery learning, states that "learning is the process whereby knowledge is created through the transformation of experience." (Kolb, 1975).

Learn by Doing through Simulation

Research has shown that learning by doing drives greater retention than other learning methods.



Source: National Training Laboratories

Why use Simulation in Business?

“Business people are concerned with doing not just knowing. Reflect for a moment on the important things you have learned. Were they to do with doing something or just learning something? Now reflect on how you learned these things - was this in the classroom or through (bitter) experience. I suggest that in most instances, important learning is defined based on the use it is put to and generally it was learned from experience. I suggest that an organization's learning strategy must extend beyond merely building knowledge. It must be directed towards developing people who make ‘wise’ decisions and a key and necessary step in this process is gaining experience. Simulations provide for this.” (Hall, 2001).

Why use Simulation in Business? – cont'd

“Simulation is the learning tool of choice for business because of four characteristics (McAteer, 1991):

- They accelerate the learning process while reducing costs.
- They serve as frameworks for testing innovation.
- They act as mechanisms for reducing risk.
- They create powerful linkages between the decision making process and critical business results.”

Why use Simulation in Business? – cont'd

“Simulations can help trainees develop specific skill clusters by encouraging active experimentation in realistic environments and by creating opportunities for feedback, observation and reflection. Simulations can provide role models. They can influence behavior and serve as ‘laboratories’ for developing problem solving alternatives.” (McAteer, 1991).

Why use Simulation in Business? – cont'd

According to Brandon-Hall, a leading e-learning researcher, “the customer base is already ‘sold’ on simulation. Most medium- and large-sized businesses recognize the effect that simulation has on improving supply chain efficiency, product cycle performance, and workforce management. They are enthusiastically embracing e-learning simulation as the most effective knowledge transfer technology.”
(Adkins, 2002)

Transfer of Learning through Simulation

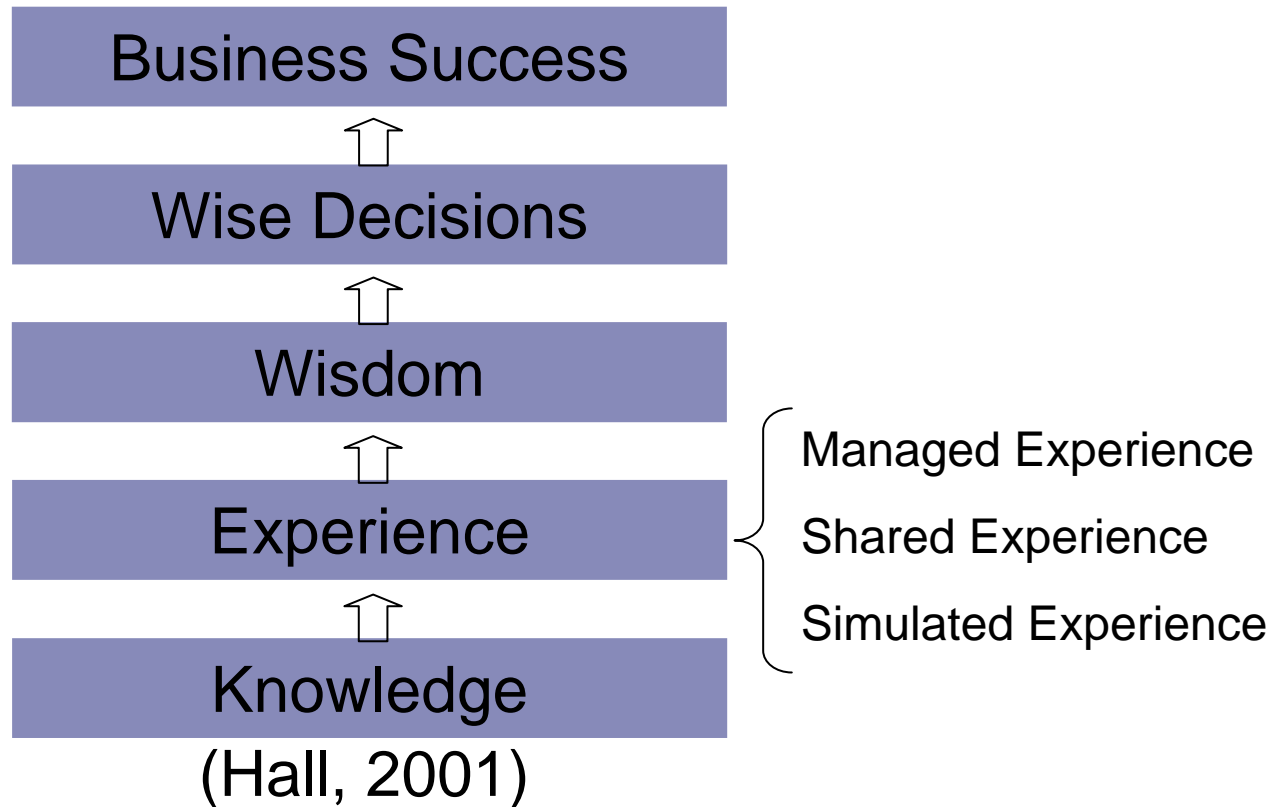
“When the cost of failure is high and when the performance arena uncertain, simulations are likely to be useful. It thus seems logical that one thing organizations can do to increase learning transfer and performance in the face of ambiguity is to employ educational interventions that are more like the learner’s on-the-job experience — simulations.” (Hill & Semler, 2001).

“In a relatively short time frame, a simulation can allow for immediate feedback, enable decision testing, and encourage the discussion of complex issues” (McAteer, 1991).

Wisdom through Simulation

“Business success requires making wise decisions and this demands wisdom. Creating wisdom involves a combination of knowledge and experience. Yet, often, experience is developed on the job in an ad hoc, accidental way. I suggest that effective learning strategy must manage this development of experience. Further there is a need to share experience so that it is not confined to a single individual. One way of ensuring that experience is built effectively and through it wisdom is using simulations to provide simulated experience.” (Hall, 2001).

Wisdom through Simulation – cont'd



Understanding the Whole Business

“Research has suggested that business simulations have the ability to create ‘microworlds’ in which students can gain a better understanding of not only individual effects of decisions on a company, but also the interactive effects of environment, multiple competitors, and employees all within a simulated experience.” (Anderson, 2005).

Behavioral Changes through Simulation

“One of the most powerful benefits of simulation is that it changes in a variety of ways the perspectives of the managers who participate. Case studies do seem to support this claim that business war games (simulations) result in participants doing things differently, thinking longer term, seeing the big picture and better understanding the complexities of the competitive landscape.” (Scherpereel, 2003).

Better Decision Making through Simulation

“Do people participating in a business war game (simulation) exercise see things differently and think differently?”

- The decision measurement technique was able to clearly demonstrate that a business war game exercise changes the way decision-makers see decision problems and the way they think about these problems. The exercise effectiveness was measured along specific dimensions to verify that a decision-maker's perception changed according to the sponsor's objectives.” (Scherpereel, 2003).

Better Decision Making through Simulation – cont'd

“Decision making responsibility has been pushed down the organizational ladder. Spans of control are larger. Responding to the challenges of a new business environment will require new learning strategies that compress the learning cycle and create new options for active learning.” (McAteer, 1991).

Better Decision Making through Simulation – cont'd

“Decision testing is the most promising of the new applications for simulation models. Many management decisions appear to follow a trial-and-error approach because a particular challenge may occur infrequently. Imagine the benefits to an organization if managers were able to test out high-risk ideas before exposing customers or assets to risk.” (McAteer, 1991).

Team-Building through Simulation

“Simulations are useful tools for team building because they illustrate the relationships between individual actions. Such relationships – along with individual and group communication skills and managerial and leadership styles – provide important parallels to actual team activities.”
(McAteer, 1991).

Leadership Development through Simulation

”Learning to lead involves dealing with complexity, taking risks, and collaborating with others to bring a myriad of talents to bear on critical issues.” (Dentico, 1998).

Leadership Development through Simulation – cont'd

“Leadership development in the face of increasing complexity must incorporate more effective and engaging learning methods. Using simulations to put boundaries around the complexity and, in essence, “package it” for learning has shown to be a useful tool. Within the simulation itself, the learner has much greater control of his or her learning than is possible in most traditional learning activities. Adult learning theory continues to suggest that this learning control and engagement is key to the construction of knowledge and to making intentional changes in behavior.” (Hill and Semler, 2001).

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