



Research on the Future of Learning and Business

■ Frameworks for Decision-Making

Decision factors

- Means of delivery
- Transient or long term
- Lead time or ASAP
- Classes or packets
- Hi to low interactivity
- On-demand or live
- Effectiveness vs. cost

A Process, not an Event

Create learning environments, not courses. Build schoolhouses, not classes.

Not a Single Intervention

Training interventions are rarely a one-shot deal. In the past, when organizations came upon performances, they would often come up with an answer – a single intervention, for example, a class. Or perhaps a class with pre-work. The future calls for multiple paths for learning, a web of learning if you will. Some people learn reading, others from pictures. And so forth. So if the learning is recurrent and important, it may be worthwhile to provide several different paths through it.

Beyond this, mastering a subject often requires a full loop of learning – observing, jading, conceptualizing, and experimenting – a mix of mental and physical activity. In the future, training will be designed as sequences, not courses.

(flow of a session with events and readings etc.)

Occam's Razor

When faced with two alternatives, choose the simpler of the two.

Pareto's Law

The 80/20 rule. It's better to be responsive than comprehensive.

Beware of Binary Choices

In the Industrial Age, you worked for a service business or for a product business. You were staff or you were line. You ran a job shop or a production line. Most things were either/or. Things were simple. Those days are gone.

Gradations have replaced yesterday's dichotomies. Fortune's 500 Industrials merged with the Fortune 500 Service Companies because firms began to fall into both categories. Your job is probably a combination of staff and line. Your production line may mass-produce customized goods.

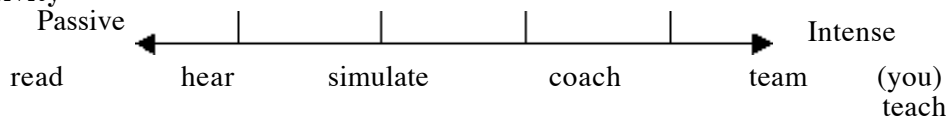
Thinking along dimensions fine-tunes the decisions we used to make by choosing from extremes. For example, how long is a single "class?" One hour, right? Well, not today. The duration of a class is however long it takes to master the material.

Class Duration



Similarly, the issue is not *whether* a learning experience is interactive or now but *how* interactive it is.

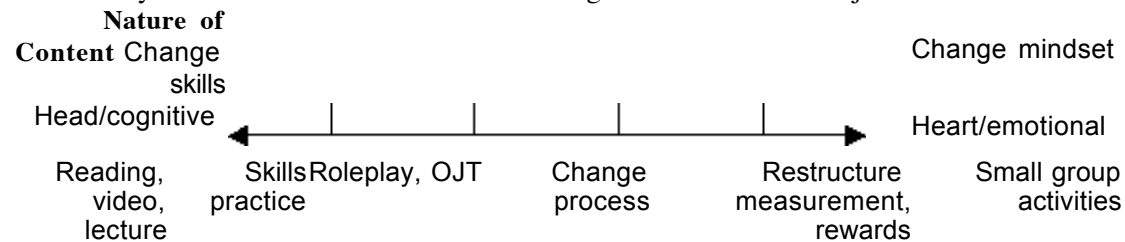
Interactivity



Dimensions

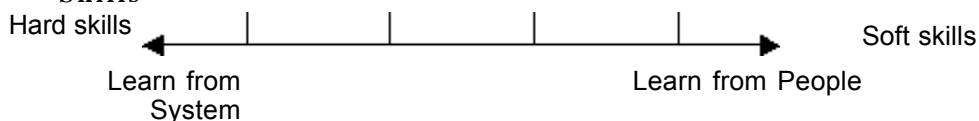
As you look through these different dimensions of learning, take note of which items you hadn't considered variables before. Try to mentally place the people in your organization on each scale.

Interactivity is vital when learners need to change beliefs rather than just learn facts:

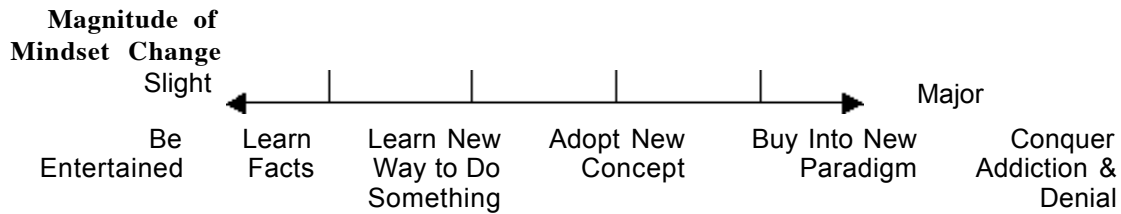


We can think of skills as being hard or soft. "Hard skills" are explicit; you can learn them from a book or a teaching machine. "Soft skills" are tougher to define; they're abstract. Soft skills overlap with "tacit knowledge," the stuff within an organization that you can learn on the office grapevine, often the ways things really work. Organizations usually find that "the soft part is the hard part."

Nature of Skills



Changing people's mindsets is always a matter of degree.



Depth of information (difficulty of learning?)

Factoid, answer, hard info, soft info, behavior change, belief/fundamentals change

The Learning Toolkit

ICQ
Briefcase
chatterbots
webex
realpresenter
delphi
ecircles
chat..
netmeeting
search bots

Eloquent, Athenium, NetPodium, CBT, Placeware, NetMeeting, Corpus Optima, etc. – a learner's viewpoint

Mechanisms

Synchronous

Internet phone & phone conferencing
Internet Videophone
RealAudio & Overhead graphics
Shared applications
Whiteboards
CU SeeMe on POTS...
IP Videophone
Mbone Video conferencing
Room Video conferencing
Remote Rover (Robot Videophone)

Asynchronous

voice mail...STT
email ... TTS
Home pages replace bulletin boards, file transport, and document distribution
Schedule & "Notes"
Voice and Video "email"

Telepresentations (meetings, presentations, & courses)

**From Training to Learning
Picking the Right Tools for the Job**

Different learning media fit different types of learning. On the one hand, there is non-threatening information; on the other, ego-challenging mental makeovers. There are droplets of information, and there are lengthy topics. And there are abstract, “soft” skills and tacit knowledge; and there are concrete “hard” skills and explicit knowledge. And there’s one-time need vs. recurring need. And cost-value. And time-value.

Unified Theory of Digital Performance Improvement

Industrial Age Individuals, standalones, things are valuable.	Transformation Digitization, communication	Network Age Things connect with one another into webs and modules. Relationships become valuable.
Threads Nodes	Become Connections	Tapestry Webs

Bits is bits. I think of a pointillist painting. Take the individual dots. They can be reconfigured into a new painting. This enables convergence. And as disciplines converge, constructs from one become available to another.

The video porno industry gave us the cheap, plentiful VCRs that play our training videos. Tomorrow’s training will ride on the coattails of electronic commerce, the net, fiber optics, parallel processing, relational databases, and other “non-training” advances.

If a tree falls in the forest, and no one hears it, it makes no sound. Similarly, if information arrives in the forest, and no one sees it, it does not become knowledge.

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