

Take T.I.M.E. for Effective Learning

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“People don’t want theory. They want practical information they can use.”

“Forget the lectures. People learn by doing.”

“Throw the sage off the stage. Make it fun.”

So goes the popular wisdom preached by quite a few people who claim to know how training should be designed. Many people in the training business have been intimidated by this incessant party line, and often made to feel their training designs are no good unless they’re heavy on experiences, group activities, games, skits, and lots of laughing.

I’ve come to refer to that view as the “hats and horns” ideology – the more your training session is like a party, the better your design.

Only problem is, it doesn’t fit all cases. In fact, it probably doesn’t fit most cases. It works very well in some situations – for certain combinations of learners, learning styles, and subject matter. For others it may be a case of technique for the sake of technique.

The hats and horns approach may work well, for example, as a design strategy for an employee orientation program, but I think there are better ways to train, say, a group of fraud auditors to identify evidence of money laundering. Sometimes the learning proposition doesn’t depend on a fun factor, and indeed sometimes the hats and horns design approach can impair the learning process. In some cases the trainees are already more highly motivated than we may realize.

To insist on forcing a learning experience into an entertainment format may be to infantilize a whole group of people who are very resourceful learners. It’s certainly possible to include an element of fun and stimulation – even with some very serious subjects – the key element, I believe, is respect for the learners and their right to learn in their own ways.

Four Key Ingredients

Virtually any learning proposition you can think of involves some combination of four key elements, which need to be balanced and integrated. Think “T.I.M.E.”, which is an acronym for *theory*, *instruction*, *modeling* and *experience*. Let’s see how these four design elements can work together to create an integrated learning experience.

Theory, as used here, includes the essential data, information and knowledge required to deal with a particular performance situation. It includes concepts, models, reference

information, key facts and figures, principles – all of the elements that serve to inform a person’s actions associated with a particular competence. The theory component of a particular competency might range from a few simple facts all the way to a complex set of concepts, principles and protocols. Example: “A legally enforceable contract has the following three characteristics.”

Instruction is the “how-to” part of the learning – specifying the actions, methods, procedures, rules and decisions needed to deal with the performance challenge being learned. Example: “Here’s how to attach the electrodes for the cardiac monitor.”

Modeling means providing observable examples of competent action. This may include watching, hearing or interacting with a person skilled in the desired performance, or it may include observing an outcome or finished product which represents competent performance. Example: “Here is a typical business proposal which resulted in winning a contract with a client.”

Experience involves the actual doing of the target behavior, preferably under circumstances similar to those under which the performance challenge will typically arise, and preferably with assessment and immediate feedback. Example: “Please calculate the break-even parameters for this capital investment option, and explain your results.”

Let’s take a quick and very simple example to see how all four elements come together. If you want to learn to serve a tennis ball, you probably won’t get very good at it by experience alone. You can hit a lot of tennis balls, but without the benefit of theory, instruction and modeling you’ll probably just become highly skilled at doing it wrong.

“Theory?” you say? Where’s the “theory” in a tennis serve? Well, it’s not brain surgery, but there are several important facts you need to know if you want to acquire an effective serve. You need to know how to grip the racquet - and why – how to toss the ball up consistently and accurately, how to serve to different kinds of opponents and where to place the ball in the opposite court. You might discover these concepts by experience alone – by trial and error – but the whole point of taking lessons is to learn them quickly and efficiently.

And, of course, the I-factor – Instruction – and the M-factor – Modeling – are extremely important as well. It’s very helpful to have your tennis instructor explain what to do and then demonstrate it. Then, through the E-factor – Experience – you attempt to replicate the model of excellence you’ve been given.

More Than One Way to Do It

Just as one can rearrange the letters in the acronym T.I.M.E. to form a variety of words - I.T.E.M., E.M.I.T., M.I.T.E. – using various sequences of these four elements can give you interesting options for training design. For the tennis lesson, for example, one could have the beginning student simply hit some balls – the E-factor – to get the feel of the racquet and the ball. Then the instructor can demonstrate by hitting a few balls – the M-factor – and pointing out the differences between an expert forehand and the beginner’s forehand. Then it might be time for a bit of background information - the T-factor – to help the student understand the concepts of timing, follow-through, spin and placement.

Watching champion tennis players, live or on video, can provide a rich source of modeling, especially accompanied by expert commentary.

While we're milking the tennis example for its maximum illustrative value, let's bring in the elements of the learner's current level of competence and his or her learning style. Most tennis pros will start with an experienced player by observing his or her game and then applying a tutorial strategy based on those observations. This may not be the most useful strategy with a person who's never held a racquet.

And learning style – or cognitive style – can play an important part in the learning dynamic, even for a motor-kinesthetic skill like tennis. For example, my preferred cognitive style – and learning style – is left-brained and abstract, the Blue Sky quadrant in the Mindex cognitive-style model. I'm perfectly comfortable if you show me diagrams of the trajectory of the ball, explain angles of incidence and reflection, and discuss the strategy for each type of shot. You can even use mathematics and I'll probably still be with you. Many other learners, however, may not respond well to those methods.

The accepted wisdom in tennis instruction generally calls for relatively little talk and lots of hitting balls, but why discount or disrespect my particular learning style because it isn't the same as yours? Trainers who cry "People don't want theory!" may actually be saying that *they* don't like theory. The fact is that some kinds of people *do* like theory; some of them like lots of it.

The Importance of Context

In order to make the T.I.M.E. formula more useful, it may help to place it into an operational perspective. We need to consider the *learning context*, which is the situation in which the learning is to take place, and we need to consider the *performance context*, in which the learner will apply the new knowledge, attitudes, skills and habits. Figure 1 shows the T.I.M.E. formula embedded in these two concentric contexts.

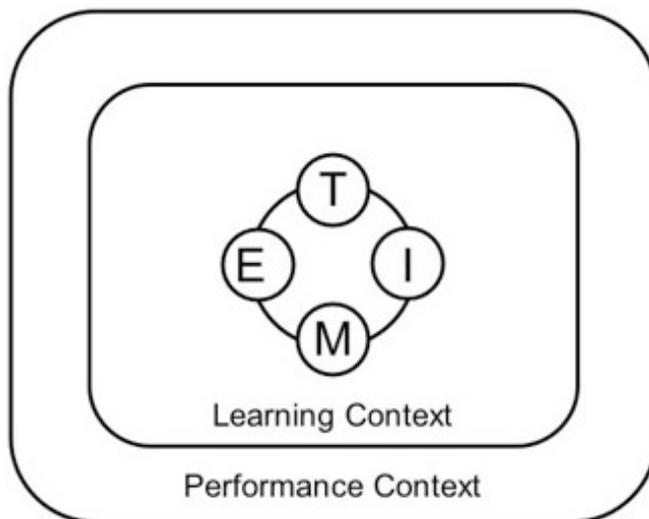


Figure 1. The T.I.M.E. Formula in Context.

The learning context includes the learner, the teacher or coach, the place and time where they engage, the physical setting, the influences of other people who may be present or involved, the learning technologies employed, the expectations placed upon the learner, the means for assessing the learning and providing feedback, and a variety of other factors. All of these contextual elements interact with the T.I.M.E. components to shape the learning design and experience.

The performance context may include the work environment, other people, possibly the learner's boss, perhaps a job situation, and a range of other factors which present the learner with opportunities to operationalize the learning outcomes.

Of course, the learning context should simulate, to the greatest practical extent, the performance context in which the learning will apply. Most experienced training designers strive to create this match as effectively as they can. However, even with a careful linkage between the two contexts, carry-over doesn't always occur automatically. Particularly if the performance context involves constraints or influences that tend to disincentivize the use of new behaviors, it's helpful to create special mechanisms to help with the transfer.

One interesting and useful method for facilitating carry-over is the use of perceptual or mnemonic "anchors" – as the practitioners of neurolinguistic programming like to call them. Mnemonic anchors include devices such as wallet cards, posters in conference rooms, memorable terms or acronyms, slogans, and physical devices or props which cue members about new possibilities.

For one of our seminars, dealing with added-value negotiating, we wanted to create a mnemonic anchor for the five key steps in the procedure. We had a supply of special ball-point pens manufactured, each with a small transparent "window" running part way down the barrel. Each time the user clicked the button on the top of the pen, the internal mechanism would rotate one notch, causing the text for one of the five steps to appear in the window. This greatly increased the recall and application of the method.

Another interesting version of the mnemonic anchor is a metaphor expressed in a literal form. One of my favorites is a safety pin. In our seminar on power thinking, we introduce an acronym – "P.I.N." – which cues a method for protecting ideas from the idea-killers in meetings. When a team invokes the P.I.N. formula, it responds to an idea or proposal in three required steps. First, they must identify positive aspects of the idea – the "P" element. Then they itemize any interesting or intriguing implications of the idea – the "I" element. Only then, after they have considered its potential merits, do they permit themselves to criticize it – the "N" element.

In the workshop they learn the concept behind the method and reasons for using it (the T-factor in our T.I.M.E. formula), they hear it explained (I-factor), the seminar leader may give examples (M-factor) and then they run a practice exercise. Once they've mastered the technique, each person receives a small safety pin as a souvenir and a mnemonic anchor for use later.

To add a bit of fun and curiosity, and to enhance memorability, the seminar leader may burlesque the idea by brandishing a prop – a huge costume-replica of a safety pin. Depending on circumstances, he or she might demonstrate the idea-killing metaphor by

popping balloons with a straight pin, and then introduce the metaphor of the safety pin as a device for protecting ideas. This technique of *literalizing a metaphor* – using its actual physical counterpart – mobilizes brain processes that heighten curiosity and increase assimilation. A variety of simple *accelerated learning* techniques such as these can have a surprising effect on recall and application of the key concepts.

Take T.I.M.E. to Learn T.I.M.E.

If you're still reading at this point, you may have noticed that the process of learning to use the T.I.M.E. formula has mostly relied on the T-factor – theory. Now, that didn't hurt, did it? We also got a bit of the I-factor – how to do it, and the M-factor – modeling by means of some design examples. So far, we're short on the E-factor – the “you do it” part.

To complete the T.I.M.E. loop, try this exercise: compare and contrast the following two learning situations, and work out at least one sequence of the T.I.M.E. factors to suit each situation. Recognize that each situation might benefit from any of several sequential strategies, and there's not necessarily a “best” solution in every case.

Learning situation #1: you have a one-hour classroom event in which you need to help a group of healthcare professionals learn how to calm a hysterical child in a trauma situation. Hint: start by itemizing the ingredients of all four T.I.M.E. elements and then look for one or more “trajectories,” or sequences of engagement which appeal to you in helping the learning to occur.

Learning situation #2: you have a one-day classroom experience in which you need to help a group of engineers and software programmers learn to become project managers. Soon after they complete the training, they will be assigned to manage some highly significant development projects. Hint: think about ways to make the learning context foreshadow or mimic the performance context, and consider ways in which the learners can assess their own performance in the “real” management situations they will encounter.

Just as a personal challenge, you might think about some familiar learning situations you deal with, and consider some unusual arrangements of the T.I.M.E. elements – innovative learning trajectories that could make the experience more effective. Particularly with “content-heavy” learning experiences, think about how you might be able to start with a direct experience of some kind which might promote certain discoveries and raise curiosity about certain aspects of the skills. This might create a greater receptiveness for the theory element.

Considering the project-manager training, for example, could you give the group an unstructured task with many elements and ask them work out a plan? Would this lead to observable behaviors and a consciousness of the common elements needed in most planning situations, increasing the receptiveness for the theory? Sometimes it makes sense to start with the theory, and sometimes it doesn't.

For the hysterical-child situation, might you begin by having participants share ideas and various methods they've tried – modeling for one another – and then provide a key concept, procedure, or other framework around which they can organize their shared knowledge?

Every learning situation offers an opportunity for creative combinations of the four T.I.M.E. factors, theory, instruction, modeling and experience. Perhaps that's why many people find training design to be such an engaging challenge.

The next time you find it necessary to cook up a training design, just remember to look at your watch.

About the Author:

Dr. Karl Albrecht is an executive management consultant, coach, futurist, lecturer, and author of more than 20 books on professional achievement, organizational performance, and business strategy. He is listed as one of the Top 100 Thought Leaders in business on the topic of leadership.

He is a recognized expert on cognitive styles and the development of advanced thinking skills. His books Social Intelligence: The New Science of Success, Practical Intelligence: The Art and Science of Common Sense, and his Mindex Thinking Style Profile are used in business and education.

The Mensa society presented him with its lifetime achievement award, for significant contributions by a member to the understanding of intelligence.

Originally a physicist, and having served as a military intelligence officer and business executive, he now consults, lectures, and writes about whatever he thinks would be fun.

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