# Insights from a Thought Leader: Frank Nguyen

I have to confess.  I have a warm soft spot in my heart for instructional design.

When I went back to graduate school many years ago, the first class I signed up for was called EDT 502: Introduction to Instructional Systems Design.  Over the course of that semester, I learned the super secret language of the *ID* like instructional objectives, assessments, alignment, formative and summative evaluation.  I was sold hook, line and sinker.

My first years in the industry were spent as an instructional designer trying to make sense of a new (at least at the time) paradigm shift called *eLearning*.  Some years later, the first courses that I taught as a university professor were introductory and advanced instructional design courses.  I have had the privilege of nurturing many instructional design professionals in both academic and industry settings.

Because of my ID roots, it pains me to admit that instructional design frankly isn't enough.

Gordon and Zemke (2000) published a *Training* magazine article a decade ago where they posed the provocative question, "Is instructional design dead?"  They argued that instructional design was no longer relevant or effective.  This sparked a debate that raged for a number of years, and the thread was recently revived in the blogosphere with *ID* supporters and skeptics lined up at opposite ends of the spectrum.

As with all things, the truth lies somewhere in the middle.  For what it's worth, I don't think instructional design is dead, it's just no longer sufficient.  The difference is subtle but important.

## Looking at the big picture

Consider for a moment the field of *astronomy.*  When most of us think of astronomy, we probably conjure up images of a lonely, solitary scientist toiling away late into the night (or early into the morning depending in how you want to look at it).  Astronomers are responsible for bringing us amazing images of galaxies that are said to be speeding away from us at speeds unimaginable.  They tell us that the universe started in a single "big bang" that has since run amuck creating planets, stars, galaxies and other objects floating around in space.

The funny thing is: you'd technically be wrong.

Strictly speaking, the literal translation of *astronomy* from its Greek roots is "law of the stars." At its inception, astronomy was limited to the study of what was then the known universe: the sun, other stars, planets and the moon.  It has since expanded to include comets, nebulae, clusters and galaxies.  In other words, astronomy is concerned with the design of any celestial object in the universe.

Big bang theory, the relationship between celestial objects and the origin of the universe itself belong to the relatively unknown field of *cosmology*.  No, I'm not talking about doing a manicure or styling your hair (that's cosmetology, thank you very much).  The literal translation of cosmology is "study of the universe."  In other words, while an astronomer could tell you how a planetary system formed around a particular star, a cosmologist could tell you how its parent galaxy or even structure of the universe itself affected the formation of that particular planetary system.  In short, astronomy is still a powerful and relevant science, but it is focused myopically on individual systems.  Cosmology on the other hand looks at the big picture.  It looks at the design of how those individual pieces interact together.

In many ways, instructional design is like astronomy.  Despite the controversies and diverging opinions, it has proven itself over the past fifty years as a powerful and reliable methodology to create effective, repeatable learning events.

## Design learning experiences not just events

Instructor-led training (be it in a brick & mortar classroom or online) and web-based training events will continue to be a staple in our diet, but we now have many other ingredients available to help us solve problems.  But we have progressed beyond learning events.



*Figure 1.*  Extending before and after the learning event

For example, we can address communication issues through blogs, podcasts, emails or even simple newsletters.  We can capture the knowledge of experts or average employees using wikis.  We can intelligently provide information to users through performance support embedded directly into the software tools they use on a daily basis.  We can even provide real-time assistance to employees who may not be in a traditional office setting -- such as equipment technicians, warehouse operators or field sales – through performance support integrated into mobile devices and smart phones.

The design of learning is no longer like astronomy.  It should no longer be confined to myopic learning events that take place between the four walls of the classroom or virtually within the office cube.  Learning is bigger than that.  It can take place anytime, anywhere and we must design with that big picture in mind.  The *five moments of need* provide us an excellent framework to comprehend this paradigm shift.  While instructional design and learning events are squarely focused on the first two moments of need (learning for the first time and wanting to learn more), we need to be more mindful and deliberate with the other three moments of need.

Figure 2 illustrates one way to approach learning experience design.  A learning experience can be split into three distinct phases: interventions that are delivered to an employee *before* a learning event, planned instruction and activities that occur *during* a learning event, and those may occur sometime *after* the employee has returned to the workplace.
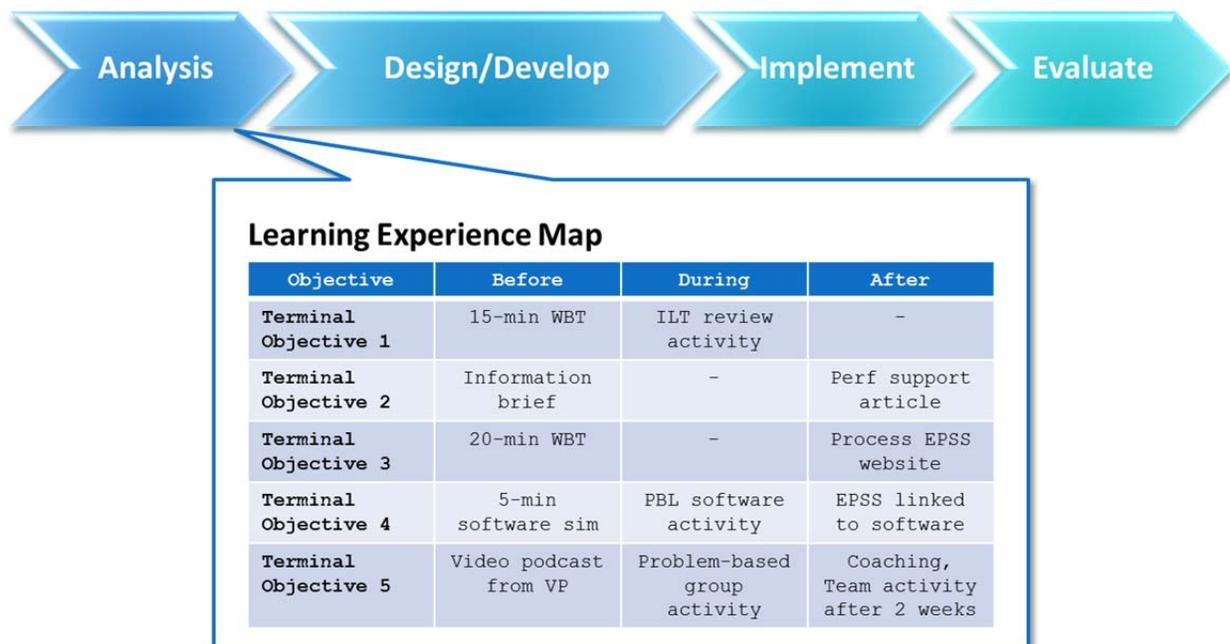


**Learning Experience Map**

| Objective | Before | During | After |
|---|---|---|---|
| Terminal Objective 1 | 15-min WBT | ILT review activity | - |
| Terminal Objective 2 | Information brief | - | Perf support article |
| Terminal Objective 3 | 20-min WBT | - | Process EPSS website |
| Terminal Objective 4 | 5-min software sim | PBL software activity | EPSS linked to software |
| Terminal Objective 5 | Video podcast from VP | Problem-based group activity | Coaching, Team activity after 2 weeks |

*Figure 2.*  Using a map to design a learning experience before, during and after a training event.

Instructional design teaches us to identify instructional objectives and then create instruction and practice to support those objectives.  As shown in Figure 3, learning experience design

starts at the end.  We still need to determine the competencies and objectives that employees require to perform their job, but rather than starting off with training, we should seek to provide as much support as close to the work as possible.  Our purpose as learning experience designers then is two-fold: 1) to provide any information that the employee might require to perform their job on the job, and 2) reinforce any learning that may occur during the *before* or *during* phase of the learning experience.  In this light, performance support plays a central role in this approach.  The *after* phase may also include other interventions like coaching, mentoring, peer learning or team activities to reinforce learning.
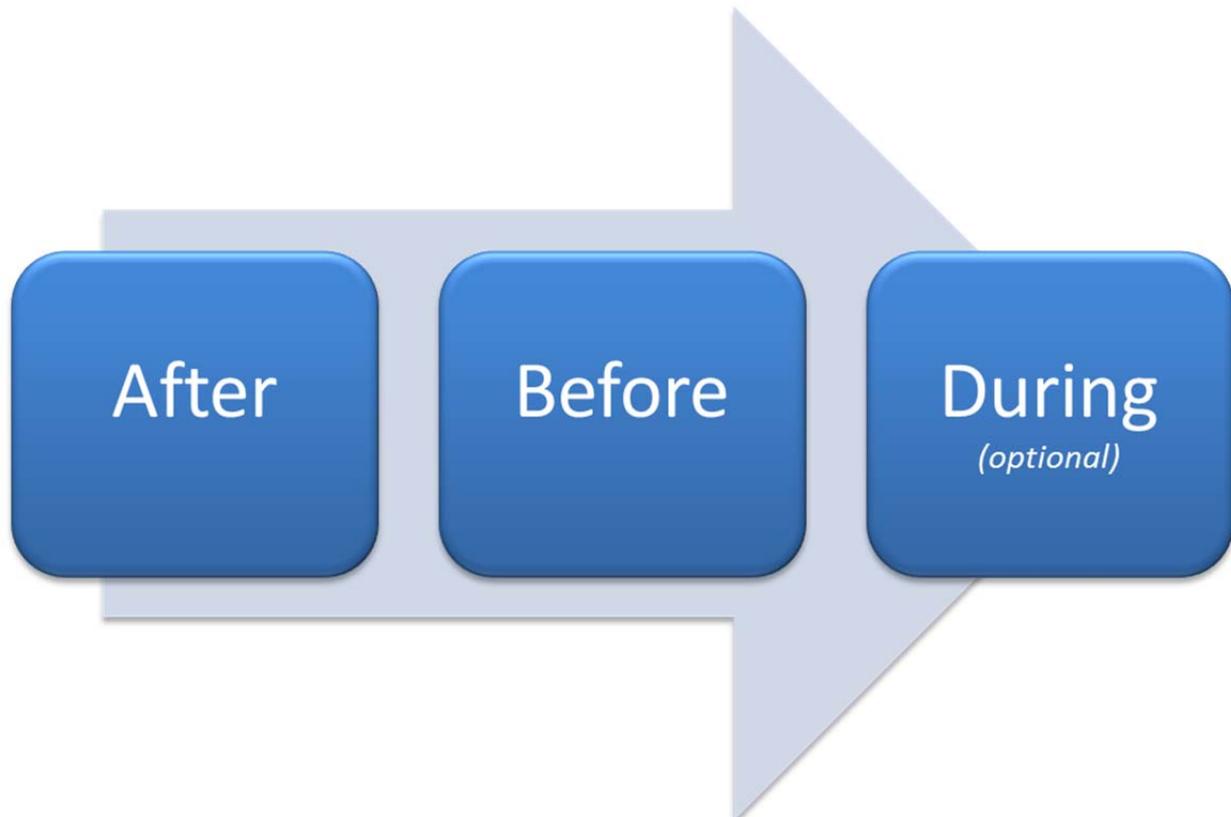


*Figure 3.*  Learning experience design starts with the end in mind

Once we've embedded as much learning in or near the work as possible, we can then focus on what interventions can be provided to employees *before* a learning event.  Our purpose as designers in this phase is to provide information for instructional objectives that are foundational, may be used frequently by the employee or critical to the employee, company or customer.  Interventions in the *before* phase may include communications such as an email from an executive or podcast from a subject matter expert.  In certain situations, the *before* phase of a learning experience can be used to prepare employees in advance of a learning event.  In ideal cases, a learning event may not even be necessary.

In the event that an instructor-led training is still necessary, focusing on support after training and interventions beforehand allows an instructor and instructional designer to be more

strategic.  Rather than spending hours or days lecturing, classroom time can be spent instead on immersing learners in authentic problems.  They can work individually or with their peers to solve issues they will likely face on the job.  They can apply what they learned before the class in web-based training or communications.  They can also solve in-class problems using tools that will be available to them afterwards such as performance support.  Rather than designing inefficient learning events, we can maximize the investment in time between instructors and learners.
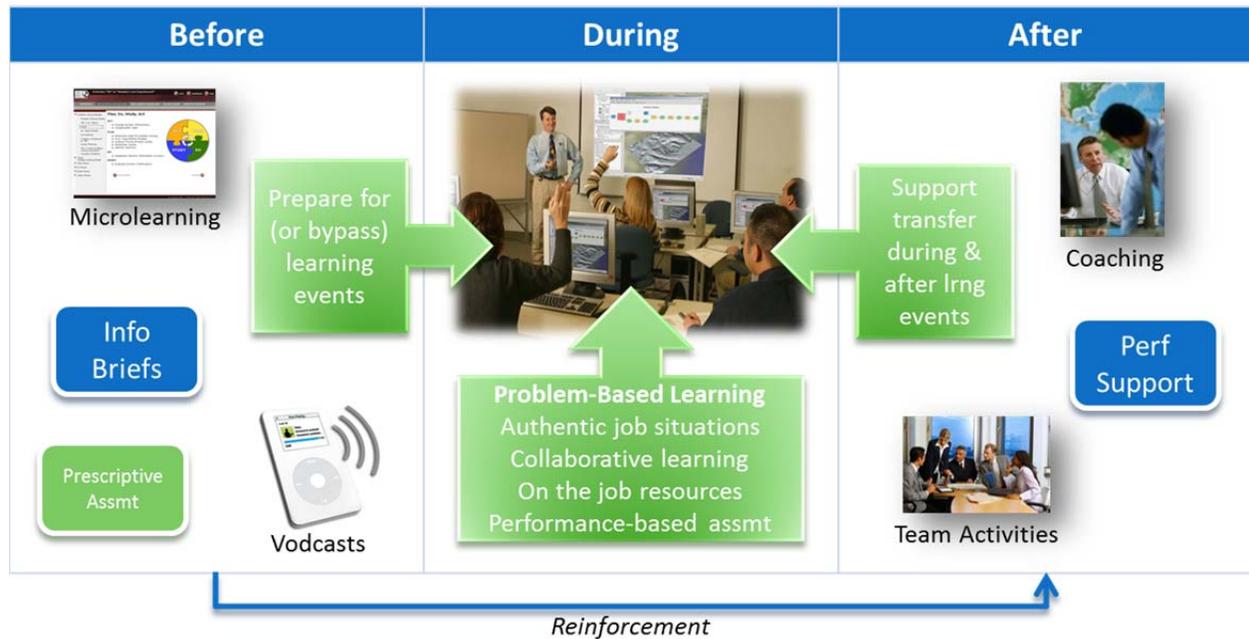


*Figure 4.*  Learning experience example.

## The universe is a big place

Cosmologists estimate that there are $9 \times 10^{21}$ (nine billion trillion) stars in the universe.  It's hard to believe that up until a decade ago, our Sun was the only star of with a known planetary system.  In 1995, astronomers discovered the first planet outside of our solar system, also known as an *exoplanet*.  As of June 2010, astronomers confirmed the existing of 461 exoplanets and have identified 706 other stars where exoplanets may exist.  That still leaves roughly another nine billion trillion stars to go (rounding up).

Like astronomers, we can no longer limit learning to small, myopic learning events.  As such, we can no longer rely exclusively on instructional design.  The universe is a big place and planets can exist anytime, anywhere.  Learning is no different.

## Biography

Dr. Frank Nguyen has managed the development and deployment of learning strategies and technologies for various Fortune companies including American Express, Intel and MicroAge. He was formerly an assistant professor in Educational Technology at San Diego State University and was voted the most influential faculty member in 2009. Frank has written various articles, books and chapters on eLearning, instructional design and performance support. His published work on performance support was recognized by ISPI with the 2008 Distinguished Dissertation Award. Frank has served on a variety of learning industry committees for Adobe, Brandon Hall, ASTD, BJET, eLearning Guild and ISPI.