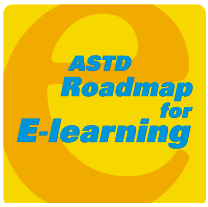


The Power of E-Performance

Technology was an integral part of the recent Olympic games in Sydney. Consider the swimming competition. Experts predicted that the innovative design of the pool and new high-tech swimwear would help swimmers shatter records. Those predictions proved true. A huge number of Olympic and world records were broken, and dozens of contestants achieved their personal best.

For true performance change.

By John W. Coné and Dana G. Robinson

Illustration by Lou Beach

Yet, despite the fact that all competitors were in the same pool and the swimwear manufacturer made the new suits available to anyone who wanted them, there were no eight-way ties in any heat. That's because there's a great deal more to performance and success than just technology. Achieving performance success in the Olympic games is a complex combination of many factors, including an athlete's inherent ability, his or her coaching and training, and the practice tools and equipment.

The lesson:

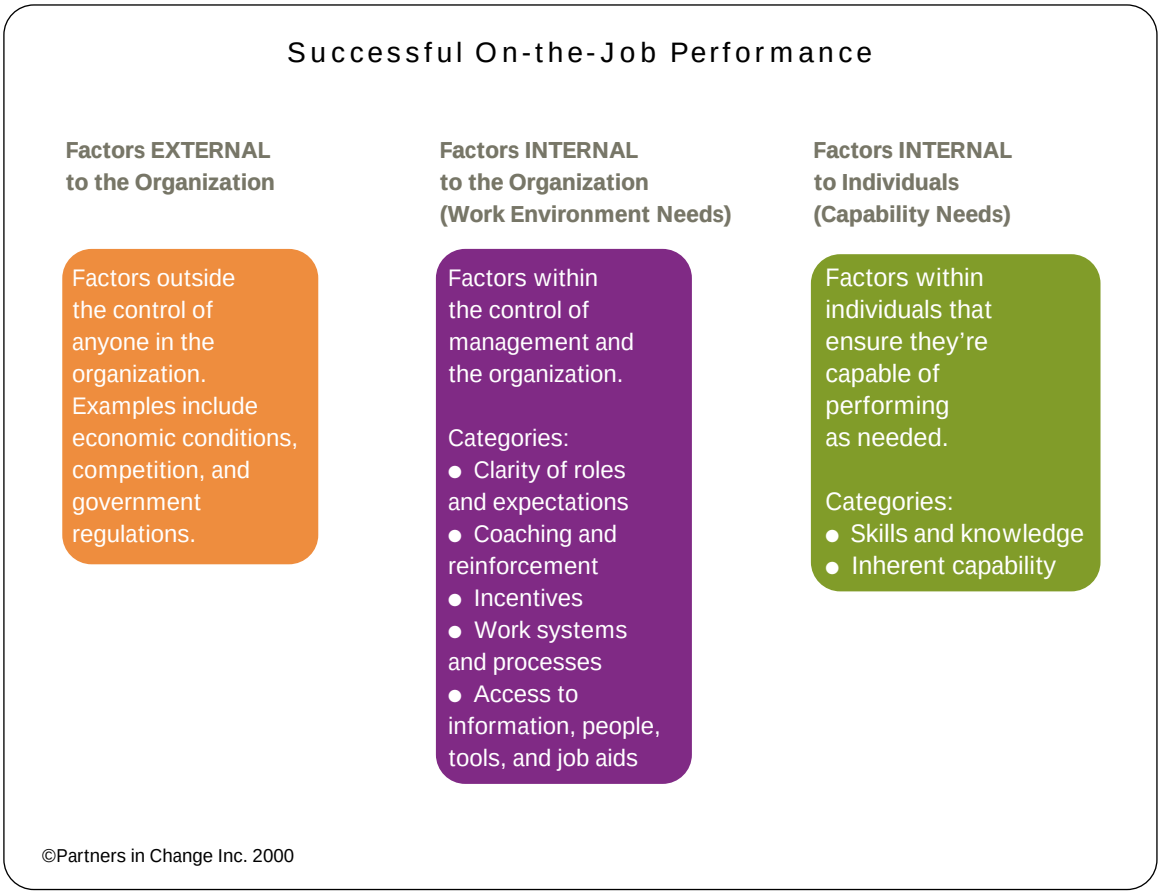
Technology alone can't produce outstanding performance.

The same is true of the technology used in the training and development profession. Whether it's online learning, e-learning, distance education—whatever you choose to call it—technology-enabled learning solutions are integral to most training departments these days. Many experts estimate that the portion of total learning that's technology-enabled is 12 percent. That delivery channel is, however, expected to grow significantly in the next few years. According to a study by Boston-based Forum Corporation, the percentage of companies that provide e-learning will double in the next two years. Members of ASTD's Benchmarking Forum say that by 2002, e-learning solutions will account for 18 percent of the training in their organizations. There's evidence that an increasing portion of training budgets is being allocated to the purchase of hardware and education programs to be delivered through technology. In fact, there has been a 66 percent increase in those expenditures over the past five years, according to *E-Learning*, by Marc Rosenberg (McGraw-Hill, 2000). GO TO Books on page 82 of this issue
Wall Street analysts view corporate e-learning as one of the fastest growing markets in the education industry. Though the predicted demise of the classroom is premature, it's evident that a sea change is occurring in the training industry: Structured learning experiences offered through technology will increase.

So what's the problem? Our experience indicates there are actually *two* problems:

Problem 1: Poorly designed e-learning. In our view, much of what's touted as technology-enabled learning is poorly designed. Too often, traditional courseware is repurposed—a euphemism for taking text from the instructor and participant guides and putting it online. What you get is the same old stuff delivered via a new channel and called e-learning. You lose the benefits of the incredible power of new technology. In such cases, limited learning occurs and on-the-job performance change is nearly impossible. To some extent, that's to be expected in any field in its infancy. We're heartened by the efforts of ASTD to develop quality standards and by the number of providers who have recognized this problem and committed to address it. It's the second problem with e-learning that we think poses the greatest risk to obtaining good results.

Problem 2: Insufficient focus. To ensure performance change following an e-learning experience, you must focus on the entire work environment sys-



tem. Statistics regarding traditional training show that, in general, less than 30 percent of what is learned is actually applied on the job. Does that mean the training was ineffective? Not necessarily. Recall the swimming example from the Olympics: Performance resulted from multiple factors. The same is true for performance of people in organizations. Successful performance happens because people have the necessary skills *and* a supportive work environment. Learning by itself, no matter what the quality or method, rarely changes performance.

That's a lesson we should have learned from the years when traditional training was the primary option. The rush to e-learning poses a real danger that we are repeating the same mistake–reliance on a single learning solution to change performance. Only this time, the solution is of the *e* variety.

How did we draw that conclusion? Growing evidence suggests that electronic-mediated options result in an equal or higher level of skill and knowledge acquisition over traditional instruction. However, there are also strong indicators that the actual transfer of acquired skills is still occurring at 30 percent or less. The Measurement and Evaluation Consortium—a group dedicated to networking, sharing best practices, setting industry standards, and creating cutting-edge strategies for the training and HR fields and business in general—recently launched a project to measure the impact of e-learning on business. Lotus-IBM, MediaOne, and Microsoft are the leads, and the consortium includes Cisco, Dell, Intel, Verizon, Accenture, and many more. That project was begun, they tell us, because the little research that exists has failed to demonstrate significant improvements in performance results over traditional methods of training.

What can be done to increase performance change following an e-learning experience? Our premise is

Aligning Work Environment Factors With E-Learning

0 = E-learning solutions can't be designed to address this factor. If the factor is a barrier to performance, it must be addressed in other ways.
10 = Properly designed e-learning can address this factor fully.

	Factors Affecting Performance Internal to Organization and Individuals	Least Integrated to the Job ← E-Learning Solutions → Most Integrated to the Job				
		Blended Learning Solutions	Curriculum-Integrated E-Modules	Stand-Alone Synchronous Programs	Stand-Alone Asynchronous Programs	EPSS
ORGANIZATION	Clarity of role and expectations	0	0	0	0	0
ORGANIZATION	Coaching and reinforcement	0	1	3	4	5
ORGANIZATION	Aligned incentives	0	0	0	0	0
ORGANIZATION	Effective systems and processes	0	0	2	3	4
INDIVIDUAL	Access to information, people, tools, and job aids	4	4	5	6	6
INDIVIDUAL	Inherent capability	0	0	0	0	1

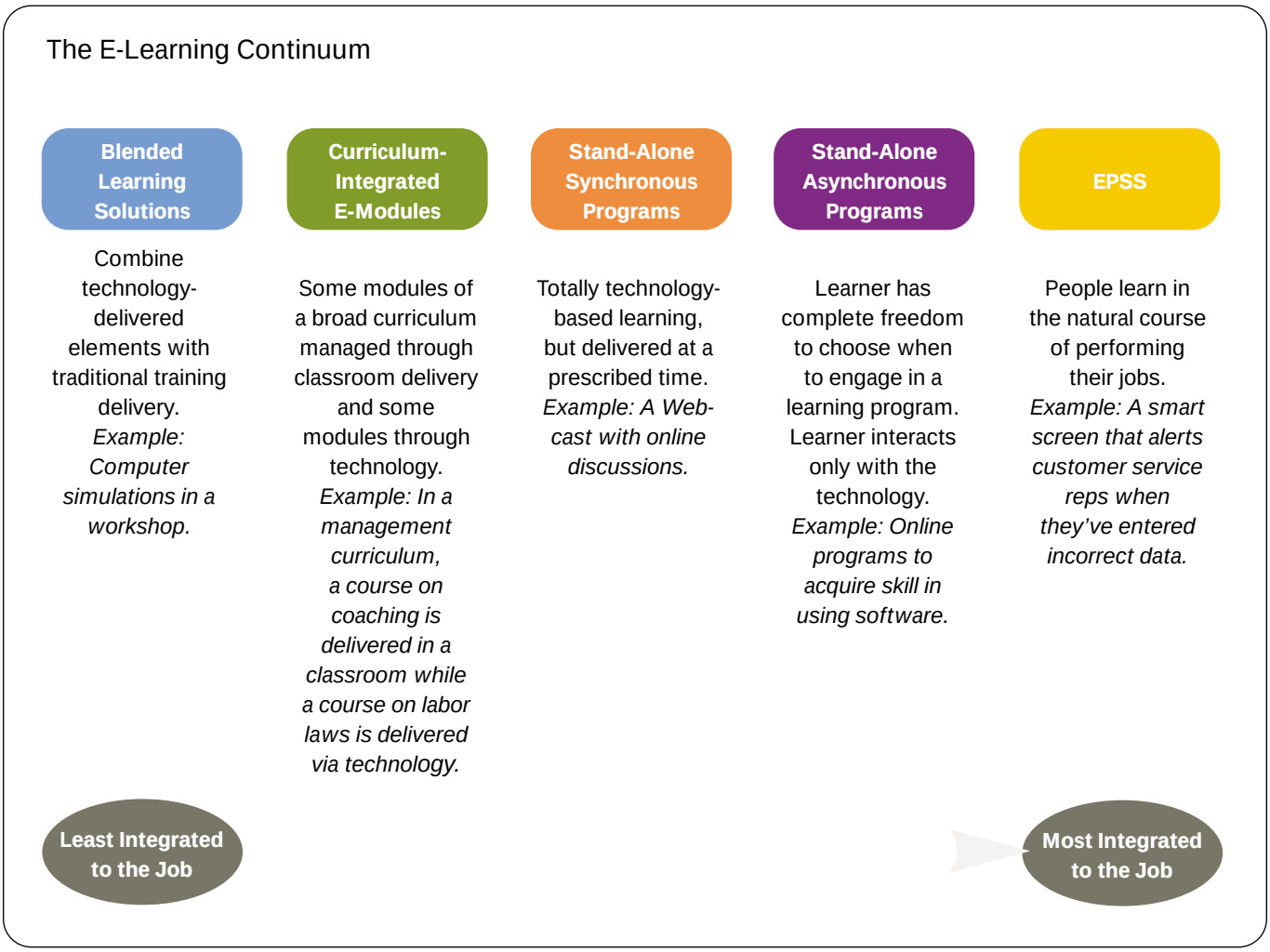
that many of the same actions required when developing skill through traditional training approaches are still relevant. However, some of the actions can be addressed in new ways. Let's begin by identifying the reasons people do or don't perform on the job once they acquire the skills through any learning solution.

Performance change from e-learning

Several major factors affect people and their day-to-day performance.

External factors These factors, though they challenge business and performance success, are outside the control of anyone in an organization. Such factors include economic conditions, demographics, and government regulations. An example: Salespeople in a consumer product company aren't closing a sufficient number of sales, and revenue is below goal. The salespeople may be doing everything right in terms of their performance. The disappointing results may be due to challenging economic conditions, which reduce demand for the product, or a competitor developing an aggressive pricing scheme. What's the responsibility of the e-learning professional in this instance? It is to understand the external factors and how management will strategize to overcome them. Obviously, e-learning alone won't suffice.

Internal organizational factors These factors are within the control of management. Delivering a quality e-learning experience in a work environment



in which one or more of the factors is not supportive will limit success.

Consider this situation: Customer service representatives in a call center were taught through an e-learning solution to use a software package. The e-learning included excellent testing, so it was demonstrated that the reps had acquired the skills they needed to use the software. The problem occurred when they went to apply the skills on the job. The software would accept inaccurate and incomplete information. The reps, who were held accountable for managing a heavy call volume, experienced no negative consequences for entering wrong data, especially when customers were waiting in the cue. The job aids and templates were inadequate, and there was no plan to provide coaching and guidance. So, people learned what was necessary but were unable to apply it successfully on the job. The result? Limited performance change due to factors in the work environment, despite a significant e-learning investment.

Internal individual factors These are factors for which an e-learning solution is most applicable. With the right needs assessment, e-learning can direct people to just the learning they require. Yet, by themselves, e-learning solutions are still insufficient because they can't address inherent capability. Success in a job might require advanced experience dealing with and troubleshooting technical problems, having a Ph.D., being able to lift 75 pounds,

or subtler and less measurable capabilities. If someone's attributes and education don't match the job requirements, performance success will be challenged no matter what e-learning solutions and options are provided.

E-learning alone won't result in successful on-the-job performance. Multiple factors must be aligned for performance results to occur. Yet, the history of the learning and development profession shows that, too frequently, such factors have been ignored or only modestly considered when designing and implementing traditional programs.

Let us not repeat that mistake. Single solutions don't change performance. E-learning offers many options and possibilities for addressing systemic issues that aren't available with traditional training. The opportunity to truly enhance performance following learning has never been greater.

Putting it all together

As yet, there's no widely accepted taxonomy of e-learning. We propose a view of several e-learning options in use by placing them on a continuum from least to most integrated into the job.

The bottom line is straightforward. If the end goal is for people to apply newly acquired skills to the job, which will enhance their performance in some way and deliver results, you must consider all of the factors affecting performance. No matter what amount of skill is acquired through e-learning, people still must

- have clear roles and expectations for using the acquired skills
- obtain coaching when needed on how to apply the skills and receive reinforcement when that application occurs
- have positive incentives for using the skills and consequences when that doesn't occur
- operate within systems and processes that are efficiently and effectively designed
- have access to the information, people, tools, and job aids required for success
- apply for jobs that match their innate abilities and interests.

The exciting twist is that, in some instances, an e-learning solution can be designed to address some of those factors—an option that's unavailable in most traditional training programs. That's particularly true for e-learning solutions that are integrated into the job. Assuming that an e-learning solution is designed effectively so it does indeed enhance skills, the table on page 36 suggests which work environment factors to address, at least partially, in the e-learning experience. The numerical value in each box indicates our assessment of the degree, on a 1-to-10 scale, to which a properly designed e-learning solution could address a specific factor.

You may not agree with each of the numerical values, but it's clear that e-learning solutions offer new ways to address elements in the performance system. As illustrated, stand-alone asynchronous programs and EPSS offer the greatest possibilities for designing into the e-solution some of the work environment requirements. That's because those solutions are used in the workplace and job setting.

Let's consider some of the options for addressing work environment factors through e-learning.

Providing access to tools and information.

Stand-alone asynchronous programs and EPSS solutions can be designed so that they're customized to a person's role. For example, you can use cookies to track the performance of actual tasks, and design systems to push highly customized, role-based information to the performer. If you've ever purchased products via e-commerce, you've experienced that technology when a Website recalls your name and offers new products based on your past buying habits and expressed interests.

Another option is to design a pre-assessment that enables employees to identify what they already know and what they need to know. The right modular design can then allow them to access only the learning or information they need. The right learning management system can also keep track of tasks being performed by employees on a production line, for example, as well as what modules are in their training plans and which they've completed. If workflow is interrupted and employees have time, they can take a mini module at their workstations. That's learning customized to the job and skills record of the employee, providing knowledge that's totally integrated to the job.

The use of links, "learn more" options, instant email connections, and threaded discussions are ways you can use technology to create broad, often instant access to tools and information. In certain settings, learning truly can be synchronous with work. For example, a technical support specialist

Checklist to Ensure Performance Change

Actions to take PRIOR to designing or implementing an e-learning solution

_Affirm on-the-job performance results that are anticipated from this program. Ensure that the learning design supports the results.
_When conducting a needs assessment, include questions that assess readiness of the work environment to support the new or improved skills.
_Further assess the readiness of the work environment through conversations with client-manager and program participants.
_Meet with the client-manager to agree on actions that management must take to address identified barriers to skills transfer.
_Push back on the client-manager's request to provide an e-learning solution when the work environment won't support skills transfer, preventing the desired results.

Actions to take in PREPARING the e-learning solution, when possible

_Design into the e-learning solution supports for participants that remove or minimize the effect of work environment barriers.
_Connect the e-learning solution to existing job processes and systems, especially those that are also e-systems.
_Anticipate and design for the actual conditions under which learners will access and use the e-learning solutions.
_Design into the e-learning solution supports that will enable managers to provide coaching.

Actions to take in IMPLEMENTING the e-learning solution

_Stay connected with client-managers to ensure they're taking the agreed-upon actions regarding the work environment.
_Make sure enrollment systems used by learners to access traditional systems (such as prework, permission of manager to attend, and so forth) are replicated for the e-learning solution. Though e-learning is easy to access, it should have prerequisites or requirements for attendance that are comparable to those for traditional programs.
-If the e-learning solution is stand-alone and asynchronous, develop a method to indicate to managers that their staffs have completed the program or module. That way, managers can meet with employees to discuss how to apply the learning.
_After the program, monitor participants to determine whether they are applying what they learned. If there's lack of transfer, determine the primary causes and meet with the client-manager to decide on actions.

taking a call can customize his or her learning on the fly by connecting to a database of the company's products. He or she can use the database to identify whether the problem has occurred before, determine the most common cause and fix, and capitalize on opportunities to sell other types of service. The system can contain detailed diagrams with instructions for part replacement or service and debugging instructions for software. Through continued use, the technician learns the product, reducing dependency on the database to provide the information. Performance improves as learning occurs.

Coaching and reinforcement. Technology has the potential to provide coaching and reinforcement to people once they're working to apply their newly acquired skills on the job. Pop-up screens can give immediate feedback or offer tips or links to more learning. Assessments can be designed to jump di-

Glossary

Blended learning: Programs that combine technology-delivered learning modules with traditional instructor-led and facilitated approaches.
Cookies. Files sent to a Web browser that record a user's activity on a Website. For example, cookies can store information such as a password so that the user doesn't have to re-enter it every time he or she visits the site. In a learning setting, a cookie can keep track of a person's progress in a module, store quiz responses, track learning preferences, and present customized options.
Curriculum-integrated e-modules. An e-module is integrated into a curriculum when it's required as part of the overall series of learning events, it occupies a prescribed point in a learning sequence, and it can be anticipated in the prior learning events or referenced in later ones.
Links. A link generally appears as a highlighted word or phrase in a document. Links contain hidden instructions that let users, by clicking on the links, jump to another section of the same document or to another document on an intranet or the Internet.
Stand-alone asynchronous programs. These are not part of a series or curriculum of learning events but are self-paced and may be used at any time. They don't require simultaneous participation.
Stand-alone synchronous programs. All parties to the learning—instructor, facilitator, participants—communicate and access information at the same time. Examples are Webcasts, chats, and video teleconferencing or audioconferencing.
Threaded discussion. A series of related e-messages on a given subject, including the original message and subsequent replies. A threaded discussion is a planned and managed series of communications that enables people to talk about a topic by posting messages and replies under a particular heading.

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rectly to needed information when a question is answered incorrectly. Tools can be designed for managers to use with their employees synchronously or asynchronously. Technology can put people in touch with advice and feedback from the best coaches in the world. Managed threaded discussions can enable groups of people to have dialogues with and get coaching from leading thinkers and practitioners. Personal email coaching from experts can continue for months after a program or threaded discussion is completed.

Those new options are exciting.We must capitalize on them. But they're insufficient if performance change is to result from an e-learning experience. It's important to consider the entire performance system at the start of an e-learning initiative by identifying which work environment factors the e-solution will be able to address, while forming a plan to address any others that are relevant.

The responsibility for ensuring that the work environment is supportive doesn't rest solely on the e-learning professional. Accountability for ensuring performance change is shared between the e-learning professional and management. It's vital that our profession, and we as professionals, learn from previous experiences. Many of us learned the hard way that traditional training approaches without work environment support yield minimal impact or results. E-learning technology offers the chance to deliver learning in new ways to new audiences, customized and controlled by the learners and with speed and impact never seen before. But like any new and powerful technology, it can be an expensive and unproductive exercise resulting in disgruntled users and little return.

The implication is clear: When implementing e-learning solutions, we must consider the human performance system or risk disappointing results. TD

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