"If we don’t walk away with a sense that we’re building better leaders, then we’re not really performing.”
—David C. Novak
DESIGNING LEARNING for a 21st Century Workforce

By Nick van Dam

Globalization, increased competition, complexity, uncertainty, emerging technologies, different generations in the workforce, and a shorter shelf life of knowledge all converge to fuel the need for the constant reskilling and up-skilling of the workforce. Additionally, people expect organizations to continuously build the capabilities that keep them on the cutting edge of their profession.

In this article, I will introduce a learning framework that provides a holistic perspective on how organizations can build people capabilities and design leading learning experiences with bottom-line impact and relevance to a global workforce.

The figure on page 51 shows a new learning framework that has been developed and validated with many learning and development (L&D) professionals around the world, and was published in my latest book, Next Learning, Unwrapped.

Personal and organizational learning does not need to be one-size-fits-all. Rather, it can take place through multiple blended formal and informal learning initiatives.

**Formal learning**

Formal learning is structured, curriculum-driven, and role- or level-based learning that is formulated by an organization. In other words, the organization determines what kind of learning needs to be completed by people during a specific timeframe to develop identified competencies.

Formal learning plays a relatively limited but crucial role in building people capabilities in organizations. Formal learning can be delivered in a classroom learning context (physical or virtual), through self-paced, technology-based learning programs (for example, web-based training, webinars, and learning apps), and by providing people with access to online
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diagnostic and assessment tools such as emotional intelligence and the Myers-Briggs Type Indicator, among others.

According to ASTD’s 2011 State of the Industry Report, the average number of formal learning content hours delivered per employee in 2010 was 32, and the so-called “BEST organizations”—last year’s 32 BEST Award winners—averaged 56 hours of learning per employee in 2010. In other words, organizations that take people development seriously provide more time for formal learning.

One of the biggest challenges for people in today’s business environment is setting aside the time needed to participate in learning. This is where I believe formal development at corporate universities and business schools continues to play a crucial role. Taking people out of the office and providing them with development time in a safe environment enables them to experiment with new ideas and concepts, practice skills in simulations, develop solutions for existing business issues, reflect on their performance and that of their team, and turn their learning into new behaviors and actions.

Conversations with L&D leaders from different companies in countries around the world have proved that many still value a formal, structured approach to learning. People want to know what is required to develop certain capabilities and want to be provided with the means to acquire those high-performance skills. This also is true of knowledge-driven organizations, and is one reason why Deloitte has made a $300 million investment in Deloitte University in Dallas.

It is important that formal learning solutions always are designed to improve the capabilities of people and enhance the performance of the organization. It is a best practice to blend formal with informal learning solutions to achieve this goal.

Informal learning
Since people spend most of their time in the workplace, it is critical to learn on the job. This informal learning can be defined as semistructured or unstructured learning that is driven by the daily L&D needs of employees, and occurs spontaneously on the job through problem solving, interaction with colleagues, and use of the Internet.

Informal learning has its theoretical roots in constructivism and is not prescriptive, but it is an example of self-directed learning. Informal learning accounts for a surprising 70 percent to 90 percent of all the learning that takes place in organizations. There are three different approaches to informal learning, as shown in the framework.

Career-driven learning. Most learning takes place when people move into different roles or work on new projects that challenge them to work with new teams in a different context and with different goals. As a result, people move outside their comfort zone into a new area—“the learning zone.” It is quite effective if these experiences are supported by on-the-job coaching and mentoring, and supplemented with formal classroom learning programs (for example, learning programs on managing people, leading change, and executive MBA modules on various topics).

On-demand learning. People are looking daily for knowledge and information that helps them to perform in their jobs.
The Internet, search engines, electronic performance support systems, and the growth of mobile computing provides people with 24/7 access to rich content at their fingertips, enabling them to fill knowledge gaps. A major challenge for many people is information overload and the fact that it is difficult to find what you need. As a result, people waste time searching and surfing different internal portals. Therefore, L&D functions need to design learning platforms that provide a personalized view on learning and are supported by social media features (for example, rated, recommended content) and up-to-date and relevant learning content.

**Social learning.** People do learn from other people in both formal and informal learning. Social learning refers to Albert Bandura’s theory that indicates that people learn most effectively when they interact with others about a given topic. A 2001 study from the Harvard School of Education reinforced this theory and showed that students who studied in groups were more engaged in their studies, were better prepared for class, and learned significantly more than students who worked on their own.

The term “social learning” also is used frequently in the context of social media and web 2.0 technologies. I have defined social learning as “the interaction between two or more people utilizing social media and/or other collaborative technologies to facilitate exchanges in knowledge acquisition.” Social learning is characterized by interactive collaboration and iterative knowledge creation stimulated by cycles of sharing and feedback.
Examples of social learning applications include serious gaming and simulations, online communities, wikis and blogs, social networking and expert directories, microsharing and tweet chats, interactive video, and crowdsourcing.

A 2011 longitudinal study from McKinsey indicates that the adoption of social technologies continues to grow across industries. The most important benefits are the increased speed of access to knowledge and external experts. Additionally, this approach has helped organizations reduce communication costs.

**Professional learning design**

With the emergence of new learning approaches and learning technologies, someone might ask: What makes a program an effective learning experience?

The results of meta-analyses of more than 355 studies concluded that the most important factor in knowledge retention is the quality of the learning design, rather than the delivery method, whether it is classroom- or technology-based learning. Physical classroom learning and technology-based learning are both used (and blended) to support learning and development, and each approach has a unique place in the portfolio of learning delivery options.

One learning design model that has been designed to guide intentional choices on the use of different learning modalities also produces high-end, effective learning experiences. This model has four sections: learning analyses, categories of learning goals, learning delivery methods, and application of instructional design.

**Learning analyses.** The first stage of a learning analysis is to assess the business requirements and determine what kind of performance capabilities the organization needs, both short term and longer term. This will help learning professionals to understand if a learning program is necessary and how the business needs can be addressed other than through learning initiatives.

If there is a need to develop a learning program, the content and task analysis stage will begin. The content is the knowledge component, and tasks are decomposed from skills that a person needs to master. These provide input for the second stage of the professional learning design model.

**Categories of learning goals.** At this stage, L&D professionals need to identify the learning goals that support building the required people capabilities and close the performance gap that was identified. There are five categories of learning goals.

- **Knowledge and skill assessment:** Assess someone’s knowledge or skills. For example, this can be done by using different (electronic) diagnostic tools or surveys or by live assessment centers.
- **Access to “look-up knowledge”:** Assess which knowledge a person needs to have access. It is not a requirement of this type of learning that the person remember the specific knowledge; he just needs to know how to find it if needed.
- **Acquire “must-know knowledge”:** Transfer knowledge that is critical for people to retain because they need to apply this on a regular basis.
- **Create and share knowledge:** Engage people in the creation of
The most important factor in the retention of knowledge is the quality of the design of learning, rather than the delivery method, whether it is classroom- or technology-based learning.

knowledge and in the sharing of this knowledge with others.

- **Skill development**: Learn a new ability or a new capacity to do something well.
- **Skill practice**: Practice a skill that has been learned.

Learning goals also can be defined in terms of business outcomes, which are verifiable outcomes of relevance to the business of the organization. Outcome-driven learning goals have gained significantly in relevance and value over recent years.

**Learning delivery methods.** At this stage, one or more learning modalities must be selected for design and development. The most important criteria for selection are learning effectiveness and learning efficiency.

Learning effectiveness determines which learning modalities provide the best way to transfer knowledge and build skills based on business requirements. For example, what is the time allotted to achieve competence? The identified learning goals have a significant impact on the chosen learning modality.

Learning efficiency determines which learning modality provides the best value for the investments made. Depending on the number of people who need to be trained, technology-based learning solutions typically provide learning at lower costs compared with physical classroom learning programs.

Learning modalities can be grouped into four categories.

- **Online performance support**: Technology-based learning systems that offer performance support help to increase productivity and efficiency. One use of online performance support systems is to support access to look-up knowledge.
- **Collaborative or social learning**: This is a situation where two or more people learn together. This can happen through enabling asynchronous collaborative and social technologies, or by having live interactions.
- **E-courses**: These are synchronous- or asynchronous-designed technology-based learning programs that support specific learning goals.
- **Physical classroom learning**: The physical classroom is an important environment for L&D, with the biggest value derived by reinforcing the company culture; providing access to leadership; building teams; exchanging knowledge and best practices across different organizations, functions, departments, industries, or geographies; networking; and practicing new skills. Another benefit of physical classroom learning is that people have dedicated time to focus on learning at a facility with limited disruptions from work.

**Apply instructional design.** After the selection of the learning modalities, the next step is to apply instructional design theories, pedagogical concepts, and instructional methods, and to identify the right media to develop world-class learning solutions.

**Designing blended learning**

The outcome of the process described here creates learning experiences that could be a mix of different technology-based learning modalities or a mix of technology-based learning modalities and a physical classroom experience. Blended learning is the mix of learning strategies, methods, media, and delivery modalities that support the learning objectives and maximize the efficiencies and effectiveness of the learning.

Finally, the magic is in the blend. Learning design excellence requires a deliberate and explicit choice of the right modality for the level of learning required.

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