

# Accelerating Skills Development: The DuPont Approach

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When was the last time your organization conducted a fullscale, comprehensive learning and development initiative? I'm not talking about refresher training, just-in-time training or onboarding training for a few dozen new employees each week. What I'm referring to is massive, top-to-bottom training.

Why?

Today's workplace is fast changing, global and highly competitive. Organizations who are able to swiftly recognize and effectively address business challenges through the development of a safe, efficient and capable workforce can remain successful in this environment.

In terms of safety, operations and sustainability, two challenges loom on the horizon. At one end of the spectrum is the challenge of an aging workforce in developed economies. At the other end is the challenge of unskilled labor in emerging economies. Each will require massive, comprehensive training. Let's look at both.



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## An aging workforce

Baby Boomers (individuals born between 1946 and 1964) make up nearly half the workforce in the United States.<sup>1</sup> But, despite the conventional wisdom that Boomers are ready to “work forever,” many of the oldest (those born in 1946 who turned 65 in 2011) are already well into retirement. A new study by MetLife (“Transitioning Into Retirement: The MetLife Study of Baby Boomers at 65”)<sup>2</sup> shows that 59 percent of all 65-year-old Baby Boomers are now partially retired; 45 percent are completely retired; and 14 percent are retired but working part-time jobs. The average age at retirement for these Boomers was 59.7 for men and 57.2 for women.

In 2012, more than one-third of working Baby Boomers anticipated that they would retire sometime during the year, when they turned 66 and are eligible for full Social Security retirement benefits.

The aging workforce isn't limited to the United States. Western Europe faces the same challenge: The number of workers aged 35 to 44 is expected to decline by 27 percent in Germany, 19 percent in the U.K. and 9 percent in Italy.<sup>3</sup> A mass exodus of older workers means many industries are facing rapid workforce turnover to a whole new generation of workers. This coming demographic cliff threatens to set productivity back. How do companies plan to train incoming workers?

Traditionally nearly 70 percent of all learning occurs on-the-job. Organizations, therefore, have trained new workers through on-the-job training mechanisms facilitated by older, highly experienced workers. As Baby Boomers leave the workforce, however, their knowledge will go with them unless organizations have in place contingency plans to ensure knowledge transfer happens, and happens quickly. The loss of institutional knowledge threatens to create gaps in safety, sustainability and operations processes.

For example, on average it takes 10 years to fully train a journeyman electrician. This 10-year development cycle combined with the rapid pace at which Baby Boomers are retiring could mean there won't be enough experienced journeyman electricians remaining in the workforce to transfer their knowledge to new workers. The end result: a skills gap that could negatively impact a company's ability to operate safely and effectively.

However, many organizations haven't faced the need for large-scale training in years. And today's workplace, as well as these incoming workers, is not the same as in the past. So unless you've recently updated your training, it may not be as effective.

In the past, manufacturing workers often learned a set of tasks and then performed that job over and over again, day after day. Today, manufacturing is more flexible and may incorporate a modularized assembly process or employ a more dispersed workforce. Training workers becomes not just about learning how to do a job, but how to make decisions. The work requires higher-level thinking. Workers need decision making skills.



## **Unskilled labor & contract workers**

In emerging economies such as in parts of Africa and Asia, the mining and oil and gas exploration industries are exploding. Labor is in high demand. Companies have two options, both of which create their own training challenges: either train the local workforce, or bring in outside contract workers.

Take local workers in Africa or Indonesia, for example. They don't often possess a formal education past sixth grade. Many are herders or subsistence farmers who have no experience working in any type of industrial setting. They might not have worked around a lot of machinery, and now they are working in a highly hazardous workplace, such as on an oilrig or in a mine. Safety protocol is paramount to operations. Preparing these farm-to-factory workers requires training in basic problem solving and troubleshooting skills. Rather than train local workers, organizations might try to manage a large contract workforce. We often see this option carried out in new exploration and mining in remote areas of Western Australia and Western Canada. Companies might have people flying in to work for two to three weeks before leaving again. The challenge is training these people quickly, and ensuring continuity of knowledge as one group of workers transfers out and the next transfers in.

## **Train quickly and effectively**

While the situations are varied, the challenge for each is the same. Organizations need to get workers up to speed quickly. At the same, organizations need to ensure the training workers receive provides them with and allows them to retain the basic knowledge they need to do their job safely and efficiently.

DuPont, with more than 200 years of operating experience in 23 different industry sectors, knows first-hand that the most effective way to get people to learn is to blend classroom

study and learning through people with lots of practical, on-the-job training. The more an organization's learning activities center around providing practical experience through on-the-job applications, the quicker knowledge transfer will happen.

DuPont is able to take its wealth of experience and translate it into best practices. Through internal training programs at its own facilities, DuPont has developed a unique understanding of the practical, on-the-job experiences that are most effective for a particular industry, worksite or job role. We are able to quickly learn which tools and methods are best in a given situation. DuPont experts, using the science of instructional design, then craft these experiences into an engaging learning curriculum that takes advantage of blended delivery formats to accommodate diverse learning styles.

We know that the most appropriate delivery mode will depend on what you are trying to teach your workers. And you need a variety of ways to connect and interact with employees. Millennials (individuals born between approximately 1980 and 2000) do not learn the same way Baby Boomers did. Some individuals prefer classroom training while others like mobile options. We know how to take what works for DuPont and make it work for you.

Maintenance training is a good example. Traditionally, a company would train an electrician by first studying theory in a classroom, followed by field practice. But what types of experiences are going to be necessary for an electrician to get the needed practical application in the field? An electrician working at a chemical plant will need a different set of experiences, as well as awareness of a different set of hazards and safety protocol, than an electrician working in a different industry. DuPont, due to its breadth of experience in so many industries, is able to test various applications and learn what works in any type of industrial environment.

By applying sound instructional design principles, coupled with the understanding of what works well for on-the-job training and for classroom training among its own workers, DuPont is able to condense the 10-year apprenticeship model that I mentioned earlier into four to five months of highly effective training.

DuPont learning and development solutions are very flexible and adaptable. The key is to incorporate comprehensive assessments upfront. It's important for organizations that deal with diverse, global workforces to understand and assess at what level their workers are coming into the workplace. From here, DuPont can develop a curriculum that brings everyone up to the same starting level.

For example, DuPont is working with a company that has mines in Africa and Brazil. The workers in Africa typically have a sixth grade education, while the workers in Brazil typically have a high school education. DuPont is working with the company to design a curriculum that assumes

workers are coming in with a baseline sixth grade education.

Built in to the assessment process is the ability to test out of the lower levels of training. The assessment ensures that no matter what a worker's skill set is coming in, that person is placed in the right spot in the curriculum. For those at the lower skills levels, this ensures training is raising skills and making sure they are capable before starting more advanced material. For those at the higher skill levels, this ensures training is not overly simple or wasting time on material that is already known.

In today's rapidly changing work environment, the need for skilled talent is greater than ever before. Companies that invest in learning programs that are aligned with strategic priorities and that effectively blend on-the-job training with online and classroom study will better position themselves to accelerate skills development, improve organizational capability and sustain business success.

Sources:

- 1 U.S. Department of Labor, Bureau of Labor Statistics, Current Population Survey, first quarter 1999, <http://www.dol.gov/oasam/programs/history/herman/reports/futurework/report/chapter1/main.htm#3>
- 2 "Transitioning Into Retirement: The MetLife Study Of Baby Boomers at 65", <https://www.metlife.com/mmi/research/transitioning-retirement.html#key%20findings>
- 3 "An Aging Workforce's Effect On U.S. Employers" Forbes.com, [http://www.forbes.com/2005/09/28/career-babyboomer-work-cx\\_sr\\_0929bizbasics.html](http://www.forbes.com/2005/09/28/career-babyboomer-work-cx_sr_0929bizbasics.html)

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